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THE

ANNUAL

MEDICAL REGISTER,

FOR

THE YEAR 1808.

MANCHESTER INFIRMARY

BY

MANCHESTER INFIRMARY

A SOCIETY OF PHYSICIANS.

Ut hoc pulcherrimum esse judicem, vera videre; sic, pro veris probare falsa, turpissimum est. CICERO, *Academic.* IV.

VOL. I.

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MANCHESTER INFIRMARY

PREFACE.

MANCHESTER INFIRMARY

ALTHOUGH, from the very general approbation with which the Prospectus of the Annual Medical Register has been received, the Editors might appear justified in submitting the first volume to the public without any introductory observations, they think it necessary to offer a few remarks upon the plan, and upon the manner in which it has been carried into execution.

A work conducted on the principles which they have adopted, seemed to be long wanted. The limited view which has hitherto been given, in monthly and quarterly journals, of the numerous publications which issue from the press, on subjects connected with medicine and surgery, never proved altogether satisfactory to the mind of the professional reader. There appeared to him always something wanting to complete the history of medical literature; and he could not help feeling occasionally some distrust of the accuracy, if not of the judgment, of the reviewer, who might have passed over unnoticed many books of practical value, and left undiscussed many opinions of importance. He often was led to complain of the unnecessarily large space which was allotted to the consideration of works of little or no merit, and of publications which possessed merely a temporary interest; while he was left entirely to himself, to form any general view of the additions which had been made to the stock of knowledge,—a task, which, from the want of method in the arrangement of the critiques, was seldom of easy ac-

complishment. And neither from these critiques, nor from the original communications, by which they were sometimes accompanied, could he, without great labour, obtain any precise information respecting the general progress of the art within determinate periods.

With the view of remedying these inconveniences, and of furnishing a work which might serve as a complete digest of the medical literature of the age, the Medical Register was undertaken. The form of an annual volume was deemed preferable, from the consideration, that the science of medicine, depending, as it does, for its advancement, chiefly on observation, and on the careful comparison of a multitude of facts, can seldom be much affected by those causes, which occasionally occur, to improve, reform, and change the whole face of, the more purely experimental sciences; and that, on account of the high importance of its object, it is even advantageous to delay the promulgation of the new discoveries which may be made, and of the new opinions which may be advanced, till they be either completely confirmed and matured, or satisfactorily refuted, by experience. By this arrangement, the Editors have been enabled to apportion a due space to the notice of the more important works, while productions of trivial value are but slightly noticed; and where a number of publications appeared on any interesting question, to give a view of the merits and contents of the whole, in the form of a general dissertation. The advantages of such a mode of proceeding, they think, will be very apparent on a perusal of the reviews of the Pamphlets on Vaccination, and on the Medical Department of the Army.

As the chief discoveries and improvements, which take place in medical science, are now generally communicated to the world in the form of separate publications, the Editors have thought, that they should most consult the advantage of the reader by devoting the greater portion of their volume

to an account of books. The obstacles which political events have for some time opposed to our intercourse with the continent,—obstacles which every friend of learning must deplore, have obliged them to confine themselves, for this year, to the notice of the works that have appeared on medicine and the collateral sciences, in Britain; but they trust, that a more happy state of public affairs will soon enable them to comprehend an account of the more important publications of foreign countries.

Some persons have maintained, that no review could ever be conducted on strictly impartial principles. If, by this assertion, it be meant, that no review can be written, in which deviations from consistency will never occur;—in which a bias to particular doctrines will never be shewn;—and in which no critiques will appear, that will not be deemed fair by every party concerned;—the Editors of the Medical Register must admit the justness of the remark: but, if it be meant, by such a reflection, to insinuate, that all critics are necessarily swayed by prejudice, or guided by undue motives, in their censure of authors, they must wholly deny its truth. In the following pages it will be found, that the animadversions conveyed are often very severe; but, it is hoped, in no instance unjustly so. The Editors can, at least, conscientiously aver, that they are not aware of a single sentence, or a single word, having been inserted for the purpose of gratifying personal pique, or of accomplishing private revenge. If, however, they shall be proved to have been mistaken in their judgment, or to have been misled by erroneous statements of facts, they will gladly retract their observations, and offer to the injured authors the most ample atonement in their power. To secure their impartiality, they determined, as was stated in the Prospectus, to make their work, in some measure, a review of reviews. This part of the plan, it is evident, could not be completely realized in the commencing

volume; and the Editors even felt some doubt, how far it might be favourably received by the public. If their criticisms should meet with approbation, they will endeavour to perfect that, of which they have given only unfinished specimens.

To assist the reader in generalising the information to be collected from the first part of the work, an Historical Sketch of the progress of medicine and the collateral sciences has been subjoined, which must doubtless prove extremely useful, by bringing into one view the advances of the art, and by serving as a sort of index to every thing that can be deemed of importance in the physical literature of the year.

The Report, which follows, of the State of Health and Disease, in the metropolis, will be perused with interest by every description of readers. By continuing and extending the inquiry into the causes that affect the lives of the inhabitants of large towns, the Editors hope to be able, in time, to reduce to certainty this highly important branch of medical statics.

In the last department of the Register, the Editors expected to have had the pleasure of inserting a complete account of the life of the late Dr. Beddoes, and for this purpose they had recourse to the most authentic channels of information: but they found, that these had been, in a great measure, closed, in consequence of the biography of that distinguished character having been undertaken by Dr. Stock, of Bristol. As any account, therefore, which they could have furnished, must have been necessarily very imperfect, they have judged it prudent to confine themselves, for the present year, to the notice of the life of Dr. Hawes; an individual whose name must be always associated with feelings the dearest to the human heart, as being one of the first institutors, and the chief supporter of the Humane Society.

In performing their task, the Editors have had to combat with many difficulties, and to yield to many unpleasant cir-

cumstances. They trust, however, that the first specimen of their labours, though, perhaps, not so equal in the execution as could have been wished, will not be deemed unworthy of the public patronage, but will be found to combine advantages which would be sought for in vain in any other periodical work. Differing, as it does, from all similar publications in its plan, it is confidently hoped, that the Medical Register, instead of degenerating, will continue to improve in interest and value; and that every succeeding volume will be superior to the one that went before, in proportion as the writers become acquainted with their own powers, and learn to appreciate justly—

——"quid ferre recusent,
"Quid valeant humeri."

Several causes, which it was impossible to foresee, have concurred to delay the publication beyond the intended period; but the arrangements, which have been adopted, will secure its earlier appearance in future.

Before concluding, the Editors feel themselves called upon to return their warmest acknowledgments to those gentlemen who have favoured them with their assistance; particularly to the contributors in the Surgical and Chemical departments, without whose aid the work could never have been rendered so generally useful as it may now be presumed to be.

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ERRATA.

Page 32 line 38, for *must*, read *most*.
45 —— 22, — *act*, read *art*.
47 —— 47, — *or*, read *we*.
50 —— 30, — *dissertation*, read *disputation*.
174 —— 34, — after *is*, dele *comma*.
261 —— 17, — DIATETICS, read DIETETICS.

THE

ANNUAL MEDICAL REGISTER.

PART I. REVIEW OF BOOKS.

MANCHESTER INFIRMARY

CHAPTER I. THEORETICAL AND PRACTICAL MEDICINE.

ART. I. *A Letter to the Right Honourable Sir Joseph Banks, Bart. P. R. S. on the Causes and Removal of the prevailing Discontents, Imperfections, and Abuses, in Medicine;* from Thomas Beddoes, M. D. 8vo. pp. 147. Phillips.

ABOUT three years ago, several physicians formed themselves into an association, under the patronage of the President of the Royal Society, for the purpose of inquiring into the numerous abuses that prevail in the practice of medicine, of considering what remedies were best calculated to remove them, and of procuring the assistance of the legislature, if necessary, for enforcing any scheme which they might judge it expedient to propose. Convinced of the existence of the evils in question, and of the expediency of a reform in all the branches of the art, we beheld, with great satisfaction, the establishment of such a society; though we could not help feeling some degree of anxiety as to the result of their deliberations, from observing that its most active members belonged to the class of irregularly educated physicians, whom they were desirous to interdict from attaining, in future, the higher honours of the profession; and from not being able to discover, in any of their publications, the marks of much profound reflection or very comprehensive views. Unfortunately our apprehensions proved to be too well founded; for the grand scheme which this learned body, after frequent meetings, after circulating addresses, and receiving communications (of no great importance to be sure) from all parts of the united kingdom, the grand scheme which they brought forth, went chiefly to enact, what every physician of liberal education generally goes through, viz. a

period of academical study somewhat longer than that required by the existing laws, and what a great proportion of practitioners have to submit to, viz. the payment of a considerable fine upon commencing the exercise of their profession. In the mean time, the College of Physicians of London, jealous of their ancient privileges, had expressed considerable alarm at the proceedings of the association, and lost no time in anticipating the effect of their addresses, by advertisements inserted in the newspapers, and by letters to the different quarter-sessions of the kingdom, in which they denounced as illegal, according to the statute of the 14th and 15th of Henry VIII. all medical practitioners, not belonging to their body, or not being graduates of Oxford or Cambridge. Wanting, however, the power of punishing such of these irregular gentlemen as might be disposed to be refractory, their parental admonition produced but little effect. They therefore had recourse to more secret and more sure measures; for there is every reason to believe, that it was rather through their private influence, than from a conviction of the futility of the proposed plan, that the late Chancellor of the Exchequer, to whom several applications had been made, and who at first appeared to favour the cause of medical reform, was led to adjourn the consideration of the question *sine die*.

This abrupt and somewhat unexpected termination of the labours of a society instituted for such beneficial purposes, would certainly have been a matter of serious regret, if the members of it had been sufficiently qualified for the undertaking, or had even shewn a disposition to sift the evil to the bottom, and to repress it thoroughly. But they were men of too nice feelings, and too much humanity, to attempt any such thing; they could not bear the thoughts of giving the least annoyance to any of the *intruders* 'at present practising, however irregularly;' they even gave an indirect sanction to *quackery*, not suggesting one single hint that they had any desire to put a stop to the sale of quack medicines, either by legislative interference, or by instructing the people on the subject of their health! Truly we agree with Dr. Beddoes, 'that a scheme for the reform of medicine, without the abolition of quack medicines, is about as hopeful as one for making the rattle-snake harmless, leaving the venom-fangs in his jaws; nor should we be surprised, if such a scheme pass, to hear of a grand dinner among the quacks, and each reformer being toasted in a bumper.' Letter, p. 99.——The only consequences that could possibly have resulted from the adoption of such a plan, would have been, that a few young men of small fortune might have been deterred from entering into the profession; that some hundred army and navy surgeons might have been prevented from retiring on half-pay, to practise among their friends; and that some twenty apothecaries, ambitious of figuring away as Doctors, might have experienced the mortification of not being able to purchase diplomas from St. Andrew's or Aberdeen.

In the pamphlet before us, Dr. Beddoes takes up the discussion nearly where the association left it; and illustrating the subject, as he does every thing to which he directs his attention, by his original and ingenious observations, gives us some faint notion of the improvements which that body might at least have pointed out, if not carried into effect, had it been composed of men possessing his enlarged views, and his penetrating and well-informed mind. We are, however, very far from agreeing with Dr. B. in all his opinions; but we give him credit for the many useful hints which he has suggested, and, above all, for his anxiety to strike at the root of the evil, to leave no abuse unexamined, no means of amendment untried.

We think Dr. Beddoes has succeeded in proving, that the Edinburgh College is disposed to rate its claims rather too high; and we are ready to admit, with him, the existence of a number of gross abuses, which have been gradually insinuating themselves into that celebrated seminary; and which, if not corrected in time, will eventually ruin its reputation: but when Dr. Beddoes proceeds to examine its merit as a medical school, he has described only some of its obvious defects, and has overlooked all its great and characteristic advantages. He is still more unfair towards the students; not recollecting, that the more respectable class, or those who repair to Edinburgh with a view to the obtaining of degrees, have generally been grounded in the elementary branches of the science at some other school, or in some other university. It very rarely happens, therefore, that Edinburgh graduates have studied only for a term of *three years:* but admitting, for a moment, this to be the case, it would still remain to be proved (what our author has very wisely not attempted) that the real period of study is longer in the English universities. Admitting, too, 'that the effect is in medical education as the cause,' we do not esteem the inference very correct, 'that the minds of the medical members of Oxford and Cambridge being more maturely cultivated, because they have so long to wait for a degree, do bring forth valuable fruits in proportion,' p. 38. The fact is, that the degree of bachelor of medicine may be, and generally is, obtained at the English universities, after the same length of actual residence as is required at Edinburgh for a doctor's diploma; that after this is obtained, residence is dispensed with, and leave is given to practise; and the graduates availing themselves of this privilege, often commence the exercise of their profession immediately, either by entering the army, or by settling in some provincial town, where they are received as regularly qualified, and where they have only to wait patiently till the degree of doctor comes to them, at the expiration of four years, as a matter of course. Where, then, we may ask, is the mighty difference in the education of the two classes of physicians? As to the valuable fruits of Oxford and of Cambridge, which are described as decisive of the question, we have looked around us, but have seen none which were not equalled, if not surpassed, by the produce of some other

soil. The author of the Letter says much about Heberden, and Heberden is deserving of all his praise; but, as Dr. Wells justly remarks, he 'stood, in a manner, alone in his profession,' and Dr. B. with all his ingenuity, has not been able to pitch upon any of his fellow collegians whose names he could venture to pronounce in the same breath. In truth, we suspect, that, on revolving the question in his mind, he found there was not one of them who had not his match in the graduate of some other school; and was afraid, that if the case were too minutely examined, the balance might not prove so much in favour of the former.

We much doubt if Dr. Beddoes be altogether serious, when he expresses his hope, 'that the London College of Physicians, disregarding the cry of illiberality, will maintain their post as the vestige and memento of a much stronger and more extensive bulwark, that requires to be raised against men, of whom all may have drawn from their *alma mater* some mouthfuls, but few indeed, the admirable Crichtons excepted, a bellyful of the knowledge proper for their vocation,' p. 39. If he really is in earnest, we must say, that his commendation is misplaced, and not very becoming in the advocate of medical reform. Has Dr. Beddoes forgotten how that body of men, whom he has just been eulogizing, have conducted themselves for these 150 years past,—how unmindful they have shewn themselves of the great purposes of their institution, how neglectful of the sacred trust committed to their charge—how little they have done for the advancement of medical learning—how, under their rule, quackery has flourished, and genius and merit been proscribed:—in one word, how they have sacrificed the best interests of their profession, to gratify their thirst for aggrandizement and monopoly of power?*

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* Some of our readers, who may not be familiar with the history of the Royal College, will perhaps suspect, that we are unjustifiably severe, and not borne out by facts, in these allusions to the line of policy which its governors have so invariably pursued. Their doubts will vanish, when they learn, that some of the greatest luminaries of medical science which this country has produced,—men who stamped their character upon the age in which they lived, and transmitted to posterity the most perfect models of investigation which our art can boast, were, by the illiberal spirit of their co-temporaries, excluded from a seat in that society, which they were so eminently fitted to illustrate and adorn; that a SYDENHAM, a HUNTER, and a FOTHERGILL, were never raised above the rank of *Licentiates*, while the most insignificant individuals were freely admitted to the higher honours of the College, because, forsooth, their happy stars had led them to obtain an Oxford or a Cambridge diploma! It appears even, from several passages of Sydenham's works, that though patronised by some of the Fellows, he suffered not a little from the injurious treatment, not to say persecution, of his collegiate brethren, who, if we may credit his biographers, were but too successful in branding his character with reproach, and in depriving him, by the meanest arts, of a great share of his practice. The

Has he no recollection of their conduct towards the members of that 'association' which he looks upon as so respectable?—how the Harveian Orator came forward and denounced them to his brethren as a set of obscure hostile men, '*alieni homines*,' seeking not so much the improvement of medicine, as the subversion of their ancient authority; and caused the walls of that mansion, which was destined to be the tranquil abode of learning and of science, to resound with the cry of CURRAT AD ARMA! thus realizing the very words of the allegorical harangue, which an anonymous writer, a few years before, had placed in the mouth of the fury Jealousy, as supposed, it would appear with too much reason, to preside over the affairs of the College—

> 'To arms, to arms! she screamed. At this the throng
> Recovering, recognised a sister's tongue,
> And press'd around her with an hideous grin.'*

When Dr. Beddoes calls to recollection all these things, will he still hold up the Society of Warwick Lane, as the 'sanctuary of honour,' the last refuge and safeguard of medical dignity?

In entering this protest, which we feel it our duty to make against the encomiums of our author on the London College; and which if we touch in what may appear strong terms, it is only because we look upon Dr. Beddoes as the ablest apologist which the College ever had, we hope we shall not be understood as wishing to do any injustice to the personal merits of the Fellows. Many of them, we know, are men amiable in their manners, well versed in their art, and practising it with honour and probity. But, in proportion as their private virtues are great, their conduct as members of a corporate body becomes only so much the more censurable. They should reflect, that there are not two sorts of morality,—one for individuals,—another for societies; but that the great rules of justice are eternally the same; that, however many accomplices there may be to a crime, the same degree of guilt attaches to each, as if he were the sole perpetrator; and that, however strong the precedents for its commission, the infamy of it suffers no diminution—

> ——————'Qual colpa al mondo
> Un esempio non ha? Nessuno è reo,
> Se basta a' falli suoi
> Per difesa portar l'esempio d'altrui.'

That the power of the College, as at present exercised, is founded on usurpation, and supported by intrigue and chicane, we need no better proofs, than that, in all the litigations in which they have been

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posthumous honours, which the same society has since been so eager to heap upon him, will never be sufficient to efface the stigma, which has been thus attached to its name.

* The College, a Satire, London, 1797, p. 9.

involved with the Licentiates, they have never been able to adduce one solid, or even specious reason, in behalf of their claims, but have uniformly had recourse to those *bye-laws*, which the first legal authorities in the country * have declared they had no right to enact; and by a refinement in tyranny, of which there is no example in the government of any chartered society in this, or perhaps any other country, they oblige those men, who come within their grasp, to swear obedience to statutes operating against themselves, which they (the framers) are continually altering, which they do not publish, which they carefully conceal,—not daring to expose them to the eyes of the world.—When we shall see them, discarding those sordid and selfish views by which their conduct has been so long governed, and regulating their proceedings on the principles of a manly, fair, and liberal policy, throw open their doors to all who shall be found qualified to enter, however strict the test of ability required may be, and no longer insult their brethren, their country, and common sense, by denying to a class of men, who will not yield to them in point of learning, talent, or zeal for the interests of their profession, the enjoyment of those privileges to which in reason and justice they are entitled,—merely because it can be said of them, that they have not gone through the routine of keeping some dozen terms within the walls of either of the English Universities, where it cannot be pretended that even the first rudiments of their science are taught;—when we shall see them do all this, and not till then, we will believe, that they have the welfare of medicine and the good of mankind at heart.

Regarding, with reason, improvement in education as 'the sole practicable means' of effectually bettering the condition of Physicians, Dr. B. proceeds to delineate the course of study which he would propose for adoption in medical schools, and from which, he thinks, 'it will appear that a young man can employ five or six years at medical seminaries, with advantages of the most essential kind, which he must forfeit on starting sooner as an independent practitioner, and which graduates of three years, as such, can therefore never possess.' According to this plan, the student would employ himself for the *first* year almost exclusively with anatomy, dissecting, and attending lectures on human and comparative anatomy, and learning a little chemistry and botany, by way of relaxation.

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* We will only mention the names of Lord Mansfield, C. J. and Mr. Justice Yates; of Lord Thurlow, Mr. Dunning, Lord Ellenborough, and Sir Alan Chambre, when counsellors: for the details, which our limits prevent us from entering into, we must refer the reader to the able publications of Drs. Ferris, Stanger, and Wells, where he will see displayed, and depicted in appropriate colours, a scene of injustice, violence, and oppression, which is truly a disgrace to the annals of a nation that glories in its superior civilization and freedom.

During the *second* year, he would pursue his anatomical studies, but join with them ' attendance on clinical lectures in surgery; if none are given, close study of surgical cases, particularly of surgical accidents at first, and morbid anatomy practically,' devoting his attention in the spring, summer, and autumn, to ' practical chemistry, pharmacy, botany, and materia medica.' In the *third* year, he would still go on with anatomy and surgery, but attend more to external diseases than to accidents, and might occupy the summer months with ' midwifery, medical jurisprudence, physiology, &c.' In the *fourth*, which Dr. B. thinks might be passed at Edinburgh, he would commence the study of the practice of medicine, and attend clinical lectures, still keeping up his anatomy. The *fifth* and *sixth* years he would devote to ' close attendance on hospitals, with practical reading and lectures; at Paris or Vienna, if accessible; otherwise, in London.'

In this scheme there is certainly much to commend: it would form observing and well informed physicians; and, if the circumstances of the student admitted, would be very easy of adoption. We cannot, however, help thinking, that the proposer has laid by far too great stress upon the study of anatomy, as if proficiency in it formed the chief qualification of a medical practitioner. We have never heard, that physicians were employed on account of their skill in dissection, or that the best anatomists proved always the best physicians; and certainly are at some loss to understand how we shall be better able to judge when to bleed in typhous fever, or to form our prognosis in tetanus, because in the one case we can describe the course of the minute nerves and blood vessels, and, in the other, can give names to all the muscles affected. There is, indeed, one sort of anatomy, to which, as our author very properly insinuates, the physician cannot pay too great attention, and from which he may derive many useful lessons—we mean the morbid anatomy of the system; and we think Dr. B. has himself shewn, that it is solely from their uncommon assiduity in cultivating this branch of the art, that some practitioners in France have acquired such skill in discovering organic lesions of the viscera, from the external signs of disease. We make no apology for extracting the following account given by a Paris student, but no Frenchman, to whom Dr. Beddoes had expressed his doubts as to the accuracy of some other relations on the same subject.

' J'ai été toujours etonné de la justesse du prognostic de M. Corvisart pour les maladies organiques du cœur et des gros vaisseaux. Dans sa clinique sur 30 malades, les deux tiers y etoient ils admis sur les soupçons qu'il avoit de l'existence de ces maladies; et il est certain que rarement il se trompoit——Tous les jeunes gens sortis depuis quelque temps de l'école de Paris ont peut-être plus de connoissance d'anatomie pathologique que dans toute autre université.' P. 66.

We think, however, that we can perceive some positive defects in

the plan under consideration. Physiology, for instance, the most important of studies for the young physician, is slurred over in a way that it ought not to have been, and too little is said about chemistry. But there is one branch of instruction, as yet, it is true, in its infancy, which has been entirely overlooked by our author; but which, when we remind him of it, we are confident he will allow to be of essential importance in a complete system of medical education: we mean the art of reasoning in medicine. How much useless labour might have been spared to inquirers, how many men of genius might have directed to great and useful purposes those talents which they wasted in framing vain and puerile systems; and, above all, how many valuable lives might have been preserved, if physicians had been early instructed in those principles of induction on which all true reasoning must depend! We are, therefore, of opinion, that in every school where medicine is taught, after the student is properly grounded in anatomy and physiology, there should be given a course of what we shall venture to call *medical logic;* in which it would be the business of the teacher to point out to his pupils the true method of research in medicine, shewing into what mistakes physicians had been led, from their ignorance of this method, and illustrating his positions by examples from the different epochs of the history of the science. Such a course, far from being dry and uninteresting, would, in the hands of a man of even moderate talents, become highly amusing and instructive, would assist the developement of the reasoning powers and inventive faculties of the student, and would contribute more to the formation of skilful and discerning physicians, than all the lectures that were ever yet delivered within the walls of a college.

We are afraid, that, from the cursory manner in which we have glanced at this subject, we may not have impressed our readers with the conviction which we ourselves feel; and that to some our ideas may appear even visionary and romantic. We shall have frequent opportunities, in the course of this work, of recurring to the consideration of the question, which all will confess to be at least very important; but we cannot allow the present occasion to pass by without adverting to the astonishing apathy which prevails in this country with respect to all improvement in academical education. It appears almost incredible, that the peripatetic philosophy should be scarcely yet banished from that seat of learning which produced a Locke; and that the country of a Bacon should, after almost every other nation in Europe has amended its plan of instruction, retain the scholastic usages of the dark ages, in all their native deformity. It is ridiculous to talk of the partial alterations in our university systems, as if they were commensurate with the progress of public opinion: the whole fabric is rotten, and nothing but a thorough renovation will ever do any good. The cause why our countrymen are so tardy in setting about this renovation, we could, if necessary, very

easily explain; but shall content ourselves at present with directing their attention to the most perfect model of such a change, with which we are acquainted, and which we find in the place where we should least of all expect it. It is, no doubt, a remarkable coincidence, but it is nevertheless very true, that the same country, which is now exhibiting to the world the splendid spectacle of a people roused in support of their liberties, after having been enchained for ages, under the most galling despotism and hopeless superstition that ever were imposed upon mankind, should also have given the first example to Europe of a complete and truly practical reform in its system of academical instruction. The University of Valencia, which was founded in 1411, was remodelled in the year 1786, according to a plan proposed by the Rector, and sanctioned by a royal edict. This plan is really so admirable in all its details, that we shall doubtless perform an acceptable service to such of our readers as may be unacquainted with it, in extracting those parts which relate more immediately to our subject, from the account given of it by that intelligent traveller, Mr. Townsend.

'The professors are seventy'—'For medicine, with chemistry, they have eleven professors; six permanent, the other five changed at the end of three years'—'Like the Medical School at Edinburgh, they have a clinical ward, visited daily by the students, and clinical lectures given by the professors. Beside these, with singular liberality of sentiment, they permit the professors to take what bodies they think proper from the hospital, to be dissected by the surgeons.' —'During the month of June, all the students are publicly examined in the lectures they have attended the preceding year; if approved, they receive their matriculation, and pass on to a superior class; if not approved, they continue another year in the same class, and being then found deficient, they are expelled the university.'——'For the bachelor's degree in medicine, the student must have attended the medical classes five years, and five times he must have passed his examinations. After this he must practise two years in the hospital before he can be admitted to his last degree.—The candidate for this degree is privately examined by the professors. After this, if approved, he performs public exercises, and submits to a second examination. The professors then enter the chapel, and give their votes in private. If these are favourable, they proceed to examine him once more in public, and if he acquits himself to their satisfaction, it is finally determined by vote that he shall be honoured with a degree.'*—The mode of electing the professors, and indeed all the other particulars of this scheme, are equally excellent and deserving of imitation. To its adoption, it is not perhaps unreasonable to ascribe the rapid improvement which has since taken place in the

* Journey through Spain, vol. iii. p. 243—8.

state of medical learning in Spain. At the time that Mr. Townsend travelled, the works of Haller were scarcely known in that country, and a great proportion of the physicians were adherents of Picquer, 'who denied, or at least doubted of, the circulation of the blood:' fifteen years afterwards, the Spanish press actually teemed with publications on the *Brunonian* system. A more remarkable revolution, we will be bold to affirm, never occurred in the literature of any country.

To return to our author: Dr. B. proceeds to suggest some hints for the improvement of the science itself, and, among others, the outline of a plan for collecting and embodying 'the whole medical experience of the country,' by means of 'reports transmitted at fixed periods from all the hospitals and medical charities in the kingdom, to a central board,' (p. 82) by which he is of opinion that a great many valuable facts, and a great deal of useful knowledge, now lost, would be preserved, to the great benefit of the country. That some good would result from the adoption of such a scheme, we most readily grant, but we doubt whether it would altogether equal the projector's hopes; for it does not appear to us, that we are so much in want of new facts, as of physicians of great and comprehensive genius, to embody those already collected, and to reduce them to a rational and regular system. 'Frustra magnum expectatur augmentum in scientiis ex superinductione et insitione novorum super vetera,' were the words of a man,* whom Dr. Beddoes will not accuse of any desire to underrate the importance of facts. It is, therefore, but too probable, that, if the experiment were made, of collecting 'the whole medical experience of the country,' in the manner above mentioned, it would soon become impossible to make any use of it, from there being no person capable of subjecting it to such a digestive process.

Dr. Beddoes concludes his Letter with some pointed observations on the *quackery* of regular physicians, and an exposure of the mean arts to which too many of them stoop in their desire to obtain practice, especially at watering places. Some of our cotemporaries have complained that the Doctor is disposed to be too sarcastic on his brethren.† We are aware that he is severe, and should be happy to say, that he was unjustly so; but, after the most attentive perusal of the remarks, and the most deliberate consideration of the question, we find it impossible to lay our hands upon our hearts, and affirm, that we believe his satire to be misapplied. We only hope Dr. B. himself is not infected by the contagious atmosphere in which he lives.——In one periodical work, remarkable, in general, for the fairness of its criticisms, the pamphlet before us has been described 'as a great falling off from the learned author's other compositions,'

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* Lord Bacon. † London Medical Review, August 1808.

and as betraying evident marks of impaired energy of mind.* After the view which we have given of its contents, however imperfect it may be, and after the specimens which we have laid before our readers of the manner in which it is written, we trust we shall appear justified in expressing our conviction, that this judgment is wholly unfounded, and that Dr. Beddoes retains the full enjoyment of that vigour of intellect, for which all his works have been distinguished. If, indeed, we shall not appear to have been already too free in canvassing his merits, and might venture to give advice to so experienced a writer, we would recommend to the Doctor, to digest his plans and theories a little more, before he gives them to the world, and to arrange his ideas with a little more method; by which means they would assume a more attractive form, and would probably meet with a more ready adoption.†

ART. II. *Medical Reports of Cases and Experiments, with Observations, chiefly derived from Hospital Practice: To which are added, an Enquiry into the Origin of Canine Madness; and Thoughts on a Plan for its Extirpation from the British Isles.* By Samuel Argent Bardsley, M. D. Physician to the Manchester Infirmary, &c. &c. 8vo. pp. 356. Bickerstaff.

IN the preface to this volume the author informs us, that he is wedded to no particular theory, nor is the follower of any medical sect. 'Formerly a pupil in the schools of several celebrated teachers, he may have been, like many others, in the season of youthful ardour and inexperience, too much dazzled with the novelty and splendour of system, to apply to himself, with justice, the sage maxim of "Nullius addictus jurare in verba magistri." But the period of such blind attachment has been long over. He is now arrived at that sober age, and has been so far disciplined in the school of practice, as to be enabled to distinguish between the ingenious, but delusive speculations of the framers of systems, and the rational inductions of cautious experience.' Now, nothing conduces more essentially to the advancement of medical science, than judicious details of practice, and accurate histories of diseases, by eminent and faithful practitioners. To collect and arrange a number of cases of any given disease, to observe its variations of form in different constitutions, in similar or in opposite circumstances, to

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* Edinburgh Medical Journal, July 1808.

† Since the above was written, the melancholy task has been imposed upon us, of recording the death of this author, whose works we hoped to review in many a future volume.

record the effects of the medicines which may be tried, enlarges and renders more perfect the volume of our knowledge. For this useful labour, Dr. Bardsley appears to be sufficiently qualified: his opportunities for observation and experiment have been considerable; the cases which he relates, are taken from the bed-side of the patient, and seem to be stated with fidelity and correctness; in short, the work is the result of long, diligent, and able practice, and may be perused with advantage by the experienced physician, as well as by him who is only entering upon the career of his profession.

The first disease treated of in the present volume, is Chronic Rheumatism, which, the author justly observes, is one of the most common of the many lingering and painful maladies that afflict mankind. If not immediately dangerous, it is highly distressing to the patient, and difficult to cure; it chiefly affects the labouring and industrious part of the community, and those, who, engaged in the service of their country in remote climates, have been exposed to sudden changes of weather, and extremes of temperature. 'Chronic rheumatism, and its varieties, form a large proportion of the medical cases which are admitted into the Manchester Infirmary; and it may be readily conceived, that such cases are both numerous and severe, when it is known, that the occupation of weaving is carried on, not unfrequently by preference, and sometimes from necessity, in damp and confined cellars within the town, and that the surrounding country abounds with colliers, bleachers, dyers, and other artisans, who are necessarily exposed to sudden and great changes of temperature.'

From these circumstances, a more than ordinary attention is paid to the rheumatic cases in the Infirmary, which is provided with electrical and galvanic apparatus, warm and vapour baths, and small, comfortable, and distinct wards. Under the term chronic rheumatism, is included, 'such painful affections of the muscular fibres, membranes, and joints, as are unattended with fever, specific virus, or peculiar derangement of the stomach and bowels; and which are seldom accompanied with external tumour or inflammation, but are very liable to shift suddenly from one part to another, and are readily propagated along the course of the membranes and muscular fibres. This definition will include chronic *lumbago*, *sciatica*, and what has been considered a distinct disease, *nodosity* of the joints.' Sometimes, however, when the large joints are affected, the contiguous nerves suffer, and the violence, extent, and inveteracy, of the complaint, may be augmented. The practice must consequently be regulated by the varying circumstances of the case; but, according to the author's opinion, from a large induction of facts, it should always be simple and uniform. 'It consists in removing passive inflammation, and restoring the debilitated vessels and muscular fibres to their due tone and action. These ends are chiefly to be accomplished by topical applications, although internal remedies are by no means to be neglected'

We shall now proceed to state the author's experience in the remedies which he employed to combat this complaint. The warm bath is strongly recommended by many practitioners, from its power of exciting sweating; but Dr. Bardsley found much harm result from it, when the disease had continued for a length of time, and induced both local and general debility, or when protracted deep-seated pains had infested the larger joints, as in sciatica and lumbago. 'When the pains were of more recent date, and chiefly attacked the muscles and their membranous coverings, occasionally shifting from one part to another, and the strength was at the same time but little reduced, then a moderate use of the warm bath proved highly serviceable.' When the joints were rigid, and the pain on motion severe, or when the muscles had become contracted and almost paralytic; and in protracted cases of the disease of the hip-joint, lumbago, or sciatica, the vapour of hot water locally applied, afforded (especially in conjunction with other topical applications) a safe, and often successful, remedy. Now, as sweating is the ultimate effect of the application of both the vapour and the warm bath, we cannot conceive why it should aggravate the symptoms of sciatica and lumbago, when excited by the warm bath, and relieve them when produced by the vapour bath.

'When the disease more particularly affected the muscular fibres, and was attended with torpor, rigidity, and diminution of vital heat, the application of electricity, by sparks or shocks, was often attended with manifest advantage: but it was in conjunction with the topical application of vapour, that its effects were more powerfully and beneficially exerted.' Where the pain is considerable, and the membranes and ligaments of the joints are the peculiar seat of the disease, or an enlargement of the extremities of the bones has taken place; particularly in young and vigorous subjects, local bleeding, by leeches, or cupping and scarifying, is recommended in the first instance: and when the pain and irritation are abated by repeated bleeding, issues are strongly urged. The author prefers caustic to the knife, for the purpose of establishing an effectual drain, and has found the *kali purum* answer better than any other caustic. In severe cases, several issues are requisite; the degree of irritation and discharge being moderated or increased, according to the obstinacy of the disease, and the strength of the patient. Blisters proved useful when the pain affected only the fascia and superficial fibres of the muscles; and were often more beneficial, when applied at a distance from the seat of the disease. A repetition of fresh blisters was more serviceable than keeping up a continued sore by stimulating the parts with blistering ointment. In slight cases, rubefacients and warm stimulating plasters frequently afforded relief, and sometimes entirely removed the affection.

From the usual internal remedies, the author has found little benefit; we shall therefore pass over these, and point out one or two not very generally known or adopted in practice. The first of these,

the *oleum jecoris aselli*, or cod-liver oil, has obtained considerable reputation in Lancashire: it is very nauseous to the smell and taste, and is usually given in warm table-beer, in doses of half an ounce, to an ounce and a half, twice or thrice a-day, according to the delicacy of the patient's stomach and the effects of the medicine. The cases under which Dr. Bardsley has found it most advantageous, are 'In the chronic rheumatism of elderly persons, where the muscles and tendons have become rigid, and the joints nearly inflexible, in consequence of the disease having been brought on by excessive labour, hard fare, dampness, and cold—In women, whose constitutions have been worn out by repeated rheumatic attacks after parturition, and more especially in the decline of life.' We fear, that this remedy, from its very disagreeable qualities, must be confined to the description of persons with whom it has been so successful in the Manchester Infirmary; it has, however, the admirable virtue of disposing people to increase in bulk and fatness; indeed, unless it produces this effect, it is seldom efficacious: we trust, then, that, if strongly urged, patients of a better class may be induced to try its powers. The next medicine, arsenic, is of a much more formidable nature, and, although its merits have been long acknowledged in several severe and obstinate diseases, its good effects in the cure of chronic rheumatism have not been noticed till very lately. Dr. Bardsley, however, is incorrect in stating, that the use of this remedy is 'nearly confined to a few members of the profession, residing in Manchester.' It has had a much more general trial; but as it frequently disappoints expectation, perhaps the cases in which it should be administered, are not yet precisely ascertained, and more experience of its virtues is wanted. As far as our own goes, it seems to succeed best, where the strength of the patient is much reduced, the pains long protracted, and in old subjects, rather than in young; its stimulant powers being great, in full and irritable habits, it sometimes excites pyrexia, catarrh, hoarseness, and coryza. ——This part of the work closes with some useful tables, which give the result of various remedies, in one hundred and thirty-five cases of chronic rheumatism, and disease of the hip-joint.

The next disease which claims our attention, is Diabetes Mellitus, the consideration of which occupies a large portion of the volume. The symptoms of this complaint are already well known, and we do not discover any thing new in our author's enumeration of them; we shall, therefore, content ourselves with quoting the most valuable part, for the information of our readers, viz. the general inferences resulting from a number of cases, observations, and experiments, detailed by the author.

'That an abstinence from vegetable, and the employment of animal food, together with the nitric acid, blisters to the loins, opiates, and the warm or tepid bath, comprehend the general method of cure; and that bark, astringents, and alkalies, either alone, or combined with sulphur

(such as the Hepatized Ammonia, recommended by Dr. Rollo), afford little, if any assistance, in subduing diabetes, or even arresting the progress of its characteristic symptoms.—The above means, if duly persisted in, are capable of effectually curing diabetes mellitus in its incipient state, when unaccompanied with any dangerous organic affection; and even in the most acute, and aggravated instances of the complaint, a steady perseverance in a proper regimen will arrest the progress of the diabetic symptoms, and bring the patient into a state of convalescence.——That, in order to restore the patient to general health and strength, an admixture of vegetable, with animal food, is to be gradually and cautiously entered upon, as soon as ever the saccharine impregnation of the urine, and the voracious appetite, have disappeared.—That indulgence in spirituous liquors, exposure to cold and wet, a habit of profuse sweating, the immoderate use of acid drinks, (such as sour butter-milk and whey), excessive labour, joined to hard fare, and the depressing passions, are among the most frequent predisposing causes of the disease.—That in some very protracted and severe cases, a long and rigid abstinence from every species of vegetable matter, was not found adequate to destroy the existence of sugar in the urine.—That the liquid *egesta*, in the confirmed and more advanced stages of diabetes mellitus, almost uniformly exceeded the amount of the liquid *ingesta*; and that sometimes the combined quantity of both solid and fluid ingesta, did not equal the urinary egesta. It is therefore highly probable, that the excess of the latter was supplied by increased absorption of fluids, from either the surface of the skin or lungs.—That diabetes mellitus is frequently accompanied with pulmonic disease, and often terminates in phthisis pulmonalis.—That males are more liable to the disease than females.—That the excess of extractive matter in diabetic urine, is, for the most part, in proportion to the violence and severity of the disease, especially when the patient is under no restraint of diet: and that the quantity of this extractive matter is speedily reduced by the use of animal food; and this reduction, to nearly the healthy standard, is one of the leading indications of an abatement of the malady.—That there exists a deficiency, if not a *total want of the urea*, in the urine of such cases of diabetes mellitus as are distinctly marked, and where the disease has attained its acme; and that the restoration of this principle to the urine, is among the most certain signs of a removal of the disease.'

Dr. Bardsley next considers the effects of galvanism in Paralysis. The adoption of this remedy in practice is of recent date, and our author does not pretend to much experience in its effects; he presents us, however, with some cases, from which it appears, that the galvanic stimulus is an efficacious, though not a certain remedy in several paralytic affections; and that it is preferable to electricity in those cases which appear to have their origin from a diminished state of excitement in the sensorium. It may therefore be regarded as a valuable adjunct to electricity, and affords the means of varying a long continued stimulus: a patient is sometimes cured by the water of Buxton, who has derived no benefit from that of Bath; and galvanism sometimes relieves when electricity has failed.

The White Oxide of Bismuth has recently been introduced into practice, and some practitioners have seen considerable benefit arise from its use. It is generally known that Dr. Odier of Geneva, and

subsequently Dr. Marcet, gave an account of its efficacy in dyspeptic states of the stomach attended with gastrodynia. In consequence of this favourable report, Dr. Bardsley was induced to give the remedy a trial; and the result of several cases proves, that it may be given with much advantage in Gastrodynia, Pyrosis, Cardialgia, and some other local affections of the stomach, either accompanied with, or free from spasm.

The volume terminates with miscellaneous observations on canine and spontaneous Hydrophobia, and the history of a fatal case of the disease occurring twelve years after the bite of a supposed mad dog. But having already extended this article to a considerable length, we must decline entering into the merits of this part of the work; which would involve much discussion, and for which we shall probably have a better opportunity at some future period of our labours.—From the account which we have given of this publication, it will appear, that Dr. B. is satisfied with stating cases, and drawing general practical conclusions from the result of the whole; he has foreborne to theorize, and it is not our business to form theories for him. Had he thought fit to amuse us in that way, we should have had no objection to meet him: we cannot take leave of him, however, without expressing our conviction of the utility of such reports as those with which he has favoured us; and we trust, that the author will be encouraged to proceed with his labours, and still further extend his inquiries.

ART. III. *The Cow-Pox Chronicle, or Medical Reporter.* Bruce, New Round Court, Strand.

ART. IV. *The fatal effects of Cow-pox protection, manifested by a narrative of the occurrences which have recently happened at Ringwood in Hampshire.* Hughes, Wigmore Street.

ART. V. *The Vaccine Phantasmagoria.* 4to. pp. 27. Murray.

ART. VI. *The Vaccine Scourge.* Parts I. and II. 8vo. Murray.

ART. VII. *Hints for the consideration of Parliament, in a letter to Dr. Jenner, on the supposed failures of vaccination at Ringwood; including a Report of the Royal Jennerian Society on that subject, after a careful public investigation upon the spot; also containing remarks on the prevalent abuse of variolous inoculation, and of the dreadful exposure of out-patients attending at the Small-Pox Hospital.* By William Blair, Surgeon of the Lock Hospital, and Asylum, &c. &c. 8vo. pp. 300. Callow.

ART. VIII. *Brief Review of the arguments against Inoculation for the Cow-Pox.* By William Scully, M. D. Member Extraordinary of the Royal Medical Society of Edinburgh. 8vo. pp. 88. Wilkie and Robinson. Printed at Exeter.

ART. IX. *A Letter to his Royal Highness the Duke of York, President; the Vice-Presidents, Treasurer, and Governors, of the Small-Pox Hospital, on the present State of that Charity.* 8vo. pp. 16. Murray.

ART. X. *A Letter on Vaccination, or the Propriety of inoculating Infants for the Cow-Pox considered; addressed to those whose example may influence the inferior orders.* By T. W. Wadley, Surgeon. 8vo. pp. 37. Murray. Printed at Calne.

ART. XI. *A Warning Voice to the United Parliament of Great Britain and Ireland, in which the origin, nature, and effects of Lues Bovilla, or Cow-Pox, are clearly explained, and the Report of the College of Physicians completely confuted.* By Ferdinand Smith Stuart, Esq. 8vo. pp. 85. Appendix pp. xxi. Hatchard, &c. 4th Edit.

ART. XII. *Debates in Parliament respecting the Jennerian Discovery, including the late Debate on the further grant of Twenty Thousand Pounds to Dr. Jenner; together with the Report of the Royal College of Physicians of London, on the Vaccine Inoculation, with introductory remarks.* By Charles Murray. 8vo. pp. 164. Hatchard.

ART. XIII. *Vaccination vindicated from some prevailing Errors.* By James Rumsey, Surgeon, Amersham. 8vo. pp. 35.

ART. XIV. *A Statement of some Objections to the Bill, as amended by the Committee of the House of Commons, to prevent the spreading of the Infection of the Small-Pox; to which is subjoined a copy of the Bill.* By A. Highmore, Gent. 8vo. pp. 32. Johnson.

ART. XV. *An Answer to Mr. Highmore's Objections to the Bill before Parliament, to prevent the spreading of the infection of the Small-Pox; with an Appendix, containing some interesting communications from foreign medical Practitioners on the progress and efficacy of Vaccine Inoculation.* By Charles Murray. 8vo. pp. 70. Longman & Co.

ART. XVI. *A Review of the Report of the Royal College of Physicians of London, on Vaccination.* By Benjamin Moseley, M. D. 8vo. pp. 86. Callow.

ART. XVII. *An Expostulatory Letter to Dr. Moseley, on his Review of the Report of the Royal College of Physicians on Vaccination.* By M. T. C. M. B. F. L. S. 8vo. pp. 51. Murray.

ART. XVIII. *Observations on an Eruptive Disease which has lately occurred in the town of Sherborne, Dorset, after Vaccination. In a letter to a friend.* By Richard Pew, M. D. of Sherborne, Member of the Royal Medical and other Societies, Edinburgh. 8vo. pp. 32. Longman & Co. Printed at Sherborne.

ART. XIX. *Reports of the Royal College of Physicians in London, Dublin, and Edinburgh, on Vaccination; with introductory Remarks, and other Papers.* By Joseph Adams, M.D. F.L.S. Physician to the Small-Pox and Inoculation Hospitals, and to the New Finsbury or Central Dispensary. 8vo. pp. 32. Johnson.

IT is obvious, from the length of the preceding catalogue, that the vaccine inoculation continues, in the eleventh year from the period of its promulgation, to be the subject of an ardent and extensive controversy. This, indeed, might have been anticipated. For what improvement in medicine, however salutary its influence, or however demonstrable its principles, has escaped the attacks of opposition? The lapse of a century was not sufficient to establish the cool treatment of the small-pox, so successfully practised by Sydenham:—even the great discovery of Harvey was not admitted without much dispute, although the inquiries of succeeding anatomists have not added one to the number of proofs, which that discoverer brought forward:—and it is fresh in our recollection, that the salubrity and efficacy of the variolous inoculation itself, which is now so strenuously recommended by the opposers of the cow-pox, was the subject of unceasing discussion, during upwards of fifty years. The prejudices of early education,* which are retained perhaps the more tenaciously, in proportion as it has been defective, or as the intellect is weak, will, in some measure, account for such occurrences; and they appear still less inexplicable, when we consider how much the inferences of the understanding are modified by the passions and interests of men, which generally interfere with its exercise. The controversy in question is amply illustrative of the concluding remark.

It will be impossible to analyze all these ephemeral productions; we shall, therefore, endeavour to give a general view of the state of the controversy, according to the impression, which a perusal of them has left on our minds; noticing, by the way, some of the most prominent points in each.

The mode in which the discussion of the merits of vaccination has been, and continues to be conducted, (at least by the opponents of that practice), is highly to be deprecated, and cannot fail to incur the censure of every friend to philosophical inquiry, and to a sincere investigation of truth. It is but too evident, indeed, that these are not among the objects of the antivaccinists. Nay, if we might be allowed to judge respecting their designs, from the means which they adopt in prosecuting them, we should be led to infer, that their

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* Mr. Hume affirms, that 'no physician in Europe, who had reached forty years of age, ever, to the end of his life, adopted Harvey's doctrine of the circulation of the blood.' *Hist. of Eng.*

chief intention was to involve the subject in doubt, to confuse, rather than to elucidate the evidence; and, at all events, to make a strong unfavourable impression upon the vulgar classes, whose credulity is at once their avowed ridicule and contempt, and the engine of their success, in this dishonourable contest. For they still proceed in the course in which Doctors Moseley and Rowley set out, attentive only to the quantity, and totally regardless of the quality of the evidence, which they adduce in their support. They continue to state their *facts* upon testimony of the most questionable nature; the assertion of any old woman being assumed as indubitable medical authority, and hearsay-tales recorded, without examination, as confirmed truths. They still caricature the most common disorders of the human body, in order to impress upon the public a false notion of the bestiality of their nature and origin; and have thus mischievously represented the ordinary forms of scrofula and of cutaneous disease, as the result of morbid humours introduced from the cow. And, finally, lest these unworthy means should fail to accomplish their purposes, they have not scrupled to address the vulgar and ignorant in low and sophistical declamation, accompanied with attempts at ridicule and wit, as if the miseries and diseases of mankind were objects of jest and merriment.

But in order to develope the nature of the controversy more satisfactorily, and to shew the validity of the preceding remarks, we must allow the antivaccinists to say a few words for themselves; and we believe that they will thus amply expose their own character and motives, as well as the degree of credit to which they are entitled.

'Among the numerous shocking cases of cow-pox,' says Mr. Ferd. Smyth Stuart, 'which I have heard of, I know not whether the most horrible of all has been yet published, viz. of a child at Peckham, who, after being inoculated with the cow-pox, had its former natural disposition absolutely changed to the *brutal*, so that it ran upon all fours like a *beast*, bellowing like a *cow*, and butting with its head like a *bull*.' See page 57-8. 'For my part,' he continues, 'I can scarcely think it possible, having had no time to ascertain the truth.' He publishes it on the authority of an old woman, a Mrs. Bulman, 'who communicated it as *a well known fact*.'—Now, what does the reader think of the honest intentions of a writer, who gives public circulation to so palpable a fabrication, but has not assurance enough to assert his own belief in it? This, indeed, would have evinced his folly; but he prefers another construction. The subject is too serious to be left to the lash of Satire; but the dreams of the humorous author of the Vaccine Phantasmagoria are here so completely realized, that we cannot resist the temptation of quoting a few lines.

'O Moseley! thy books, nightly phantasies rousing,
Full oft make me quake for my heart's dearest treasures;
For fancy, in dreams, represents them all brousing
On commons, just like little Nebuchadnezzars.

'There, nibbling at thistles, stand Jem, Joe, and Mary;
On their foreheads, oh horrible! crumpled horns bud;
Here Tom with a tail, and poor William all hairy,
Reclin'd in a corner, are chewing the cud! p. 8.

We should not be surprised to hear this man gravely exclaiming, in the words supposed to proceed from the mouth of Dr. Moseley,—

'What care I for Jenner, for Cline, or for Ring?
I'll prove from the Bible, 'twas vile vaccination
That brutified Babylon's famous old king.' Ib. p. 9.

But, farther, what will the reader think of the credibility of an individual, who deliberately prints a falsehood so gross as the following, even while he is talking of conscience, religion, and virtue?

'Patres conscripti! celebrated and illustrious senators of Britain, lay aside all prejudice, and receive, I entreat you, the following information with candour and attention, viz. That all the *physicians*, *surgeons*, and *apothecaries*, most eminently distinguished for abilities and professional skill, *all, to a man*, now acknowledge that *vaccination* is *not* a *certain preventive of the small-pox*; and that it sometimes produces *new*, *dangerous*, and *fatal diseases*. These truths are at this time universally granted, and candidly acknowledged by every intelligent medical gentleman.' *A Warning Voice*, &c. p. 82.

We are at a loss to characterize the spirit of such an address, to those very senators, who have received an official and public assurance, that the Colleges of Physicians and Surgeons in London, Edinburgh, and Dublin, (which comprise all the eminence of the profession in those capitals), are satisfied of the security and salutary nature of the vaccine practice! But we are not at a loss to explain the cause. This writer, it appears, and his *eminent* partisans, were overlooked by those learned bodies, in their inquiries into the evidence: and he exclaims, in the emphatic tone of anger and disappointment, 'Have they examined, or made any inquiry of Mr. Birch, Mr. Lipscomb, Dr. Squirrell, or ME?' Appendix, p. vii. We should presume they had not, as the former edition of this pamphlet, with its caricature print in front, and the writings of those other persons, were already in their possession, and *truth* was the object of their research.

We shall proceed to shew, that the credibility of the other opponents of vaccination rests upon the same flimsy foundation with that of '*Squire* Stuart. Where evidence is contradictory, a true estimation of the credit due to the parties is, we conceive, the only means of ascertaining the truth. We shall not quote the ribaldry of the 'Cow-Pox Chronicle:' like ribaldry in general, when employed on subjects of science and benevolence, it throws a suspicion on the intentions of him who adopts it, and, being used as a substitute for argument, it evinces the weakness of the cause, which it is designed to defend. This Chronicle, and the pamphlet entitled, 'The Fatal Effects of Cow-Pox Protection,' &c. have been satisfactorily traced by Mr. Blair to one writer, viz. Mr. Birch; who published a pam-

phlet in the preceding year, in which his Christian humanity was displayed, in the reason that he assigned for recommending the continuance of small-pox inoculation; namely, that, in the metropolis, '*this pestilential disease is considered as a* MERCIFUL PROVISION, *on the part of* PROVIDENCE, *to lessen the burthen of a poor man's family.*' What is this, but a recommendation to the faculty, to join the writer in the murderous scheme, of destroying the children of the poor by poison? We are sure that this pamphlet never reached the observation of the police magistrates in Bow-street, or the consequences of Mr. Birch's 'reasons for uniformly opposing vaccination,' must have proved truly 'serious' to himself. But from his humanity, let us turn to his love of truth.

Among other assertions respecting the supposed failures of vaccination at Ringwood, which have been refuted on the testimony of all the medical men, who were present at the public investigation of the affair, (including the deputation from the Jennerian Society, the practitioners of the place, and Dr. Fowler of Salisbury), Mr. Birch declares that two of the people died from 'the vaccine ulcer:' whereas the two surgeons of Ringwood attest, in letters published by Mr. Blair, that no ulcers existed, and that one of the people (Robert Burgess) died from want of nourishment, aged 75, the other from a stroke of apoplexy, aged 56, and that the vaccine inoculation 'had nothing to do with their death.'* But in the new 'Cow-Pox Chronicle,' Mr. Birch affirms, that 'Robert Burgess (of Ringwood) died of a mortification from the vaccine puncture.' This verifies the adage, that persons of a certain description should be possessed of a good memory; Mr. Birch now, forgetting his first statement, falsifies his own account of the matter!

The same writer, in the anonymous pamphlet, calls upon Dr. Jenner to 'declare what was the reason that the Gloucester regiment, under the command of his brother-in-law, vaccinated by matter sent by himself, were not secured from the small-pox?' p. 43. And in the new 'Chronicle' he affirms, that 'the Gloucestershire regiment, while encamped on Beckshill, was vaccinated by matter sent by Dr. J., but it proved *defective*, for the small-pox seized many of the soldiers a short time after.' Now Mr. Blair has published the attestation of Mr. Hayward, surgeon to that regiment, who declares, 'in no one instance have I known vaccination (either in or out of the regiment) to be ineffectual; but, on the contrary, uniformly safe, and affording *perfect* security from the small-pox.'†

If we compare these, and similar statements of the present anti-vaccinists, with the former *facts* of Drs. Moseley and Rowley, which were fully disproved by Dr. Merriman, and other respectable writers, the credibility of the junto will appear in no very favourable

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* See Mr. Blair's 'Hints,' &c. p. 110. † Ibid. page 189.

light. We do not believe that they fabricate all these stories, but it is clear that they collect with industry, and maintain with confidence, every vague report as a well ascertained truth; a conduct not less criminal than the actual fabrication would be. Add to this the mode which has been adopted of circulating the groundless tales, thus collected, by papers placarded in the public streets, and distributed from errand-carts * on the public highway; and let the reader then ask himself, if these are the means to which a philosophical inquirer would resort, for the establishment, or an honourable mind for the promulgation, of a scientific truth; if the host of enlightened individuals, to whom the profession looks up for the increase of its usefulness, and the maintenance of its honour, would condescend to measures like these; or, rather, if such measures are not worthy to be classed with the selfish and impudent quackery of the Brodums and Solomons, their prototypes, whom they so successfully imitate?

The friends of vaccination have been accused of too much violence and clamour, in their attempts to support its credit; and possibly we may be involved in that accusation. We cannot help it. Our conviction is strong: our sense of the benefits of this benign discovery, and of the miseries occasioned by the fatal pestilence of small-pox, is also deep: and we say, not for ourselves only, but for those who have been accused, that it is surely a venial error, under such circumstances, to express warmly the indignant feelings, excited by a contemplation of the dishonourable arts employed, in defiance of truth and reason, by a few clamorous individuals. If it be thought that we write interestedly, let the reader attend to the language of an eloquent senator, (Mr. Windham), addressed on the same subject to the House of Commons.†

'The House knows what are the means employed in fortifying those prejudices and *wicked arts*, by which, so little to our credit, the progress of the Jennerian invention has been hitherto obstructed. The House knows that there are men in this country, (happily not of the greatest authority), who do not think it repugnant to their duty, nor find it beneath their character, to try to prevent, obstruct, and delay the adoption of this practice, by turning against it the passions and prejudices of those, who have nothing but passion and prejudice to guide them, or who must be considered, at least, as wholly incapable of forming upon the subject any sound judgment of their own. It is vain to say, that the *arts* of such persons can produce but little effect. Finally, they cannot prevent the establishment of a system, confirmed continually by fact and experience, and sanctioned by all that is intelligent and respectable: but, in the meanwhile, there are the vulgar and the ignorant, among whom arguments, such as they use, are far more than a match for all that can be produced by men who employ, for the support of their cause, no other arms but those of *truth and reason*.'

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* Mr. Blair's 'Hints,' pref. p. iv.

† See Debates in Parliament respecting the Jennerian discovery, by C. Murray, p. 111.

And let it also be remarked, that, when the subject was before parliament, on the first occasion, the chairman of the committee declared, that 'the very kennels had been raked for evidence against it.'*

In addition to the two writers before mentioned, a periodical publication has appeared, (with the name of which we shall not sully our page), which has uniformly opposed vaccination, by the most disgraceful arts; but chiefly, of late, by scurrilous and libellous attacks on the character of its intelligent and benevolent discoverer. This work is too contemptible to occupy our time; and it must continue in its present obscure state, unless the very impudence of its abuse of the most respectable characters should gain it a temporary circulation among the malignant spirits of the day.

But let us turn to the more pleasing side of the picture, and contrast with the proceedings, which we have now reprobated, the calm and rational statements of Mr. Rumsey;—the sound and philosophical arguments of Dr. Scully, and the author of the Letter to the Governors of the Small-pox Hospital;—the humane address of Mr. Wadley;—and the eloquent exposition of the evidence relative to vaccination, by the members of the House of Commons, as collected by Mr. Murray. We should be satisfied to rest the decision of the controversy upon this comparison; particularly when we estimate the credibility of the two parties, as evinced by the internal evidence of their respective writings.

The two points, which are now principally maintained by the anti-vaccinists, are the occasional failure of the cow-pox to preserve the constitution from subsequent small-pox, and the production of *new* and dangerous diseases. We say the *occasional* failure, because the general fact of the preventive power of cow-pox cannot now be disputed, by those who will listen to human evidence. The officers of the Small-pox Hospital may be said to have '*tested*' all those that have been vaccinated in the metropolis, by distributing the contagion of small-pox so universally into all its avenues, that it is scarcely possible for those, who are not shielded against the variolous infection, to escape its influence: yet, among the many thousands who have been vaccinated, how trifling the number, that even the 'rakers of the kennels' for evidence have pretended to discover, as having been attacked by subsequent small-pox! Nay, if we were to admit, for a moment, that all these pretended cases actually occurred, vaccination would nevertheless be still entitled to our highest encomiums; for these things are to be estimated only by comparison. 'In the British islands some hundreds of thousands have been vaccinated,' (nearly as many as have been inoculated with small-pox, since the period of its introduction); 'in our possessions in the East Indies, up-

* A Letter to the Governors of the Small-pox Hospital.

wards of 800,000; and among the nations of Europe the practice has become general.'* Yet amid all the virulence of epidemic small-pox, and of contagion diffused by unceasing inoculation, the pretended failures, the majority of which have been disproved, amount to a trivial number. The College of Physicians then justly concludes, that 'the security from vaccination is as nearly perfect as can perhaps be expected from any human discovery.'

It is admitted, that, in a few instances, vaccination has failed to secure the constitution from small-pox infection, where performed by competent practitioners. It is remarkable, however, that no such failures have occurred in the practice of Dr. Jenner himself, in that of Mr. Pearson, and of other cautious and observing men. This we know from their own lips. But of what nature are the failures, which have occurred? Not deaths, nor even instances of danger, as the opponents of vaccination would insinuate; but a mitigated or imperfect small-pox, neither the same, as occurs under other circumstances, 'in the violence, nor in the duration of its symptoms; but, with very few exceptions, remarkably mild, as if it had been deprived, by the previous vaccine disease, of all its usual malignity.' *Coll. Report.* To this point Mr. Rumsey brings additional evidence, and we have witnessed the fact ourselves. The Report of the College, too, puts this fact in a very strong and favourable light; for it affirms, that, among several hundred thousand cases, there have not been so many of these unimportant failures, 'in a given number of vaccinated persons, as there are *deaths* in an equal number of persons *inoculated for the small-pox!*' There can be little doubt, that many of these failures are to be attributed to the inexperience of the early vaccinators, partly in taking the matter at too late a period;—partly in raising only one vesicle, and breaking that down with a view to vaccinate other persons from it;—partly, in omitting to watch the progress of the vesicle, which may be prevented from occurring regularly, by the presence of cutaneous eruptions existing at the time; or from other circumstances, which experience will develope.

With respect to the repeated assertions, that new diseases of frightful and monstrous appearance are produced by the cow-pox, all the individuals of candour and experience agree in contradicting them most pointedly. 'The testimonies before the College of Physicians are very decided in declaring, that vaccination does less mischief to the constitution, and less frequently gives rise to other diseases, than the small-pox, either natural or inoculated. The College feel themselves called upon to state this strongly, because it has been objected to vaccination, that it produces new, unheard of, and monstrous diseases. Of such assertions *no proofs have been produced*, and, after diligent inquiry, the College believe them to have

* Report of the College of Physicians, July 1807.

been either the inventions of designing, or the mistakes of ignorant men.' *Report.*

Finally, let us again look back on the comparative weight of evidence on both sides. We have already seen the small number and the feebleness of the opposition. But in favour of vaccination, to say nothing of the numerous individuals, who have written on the subject, the College of Physicians affirm, that 'they feel themselves authorized to state, that a body of evidence so large, so temperate, and so consistent, was perhaps never before collected upon any medical question.'

Thus far we had proceeded, when Dr. Moseley's 'Review of the Report of the College of Physicians' was put into our hands; but, as it is merely a new edition of the declamation, abuse, and 'mountebank wit,' (as the author of the Expostulatory Letter accurately designates it), contained in his former pamphlets, it will be the less necessary for us to dwell upon it, or to enter into any long analysis of its contents. It is characterized by the same intemperate and uncontroversial spirit,—the same disjointed and *charlatanical* phraseology,—the same contempt of logic, the same barefaced repetition of sophisms, for the deception of the weak, illiterate, and unwary, (for whom the antivaccinists obviously write),—and the same carelessness as to evidence, which have disgraced the former writings of Dr. M. and the cause in which he has engaged. With respect to the former of these characteristics, '*ecce signum!*' We quote the three first, and part of the fourth paragraph of the 'Review.'

'The Report of the College of Physicians on the cow-pox, has been circulated with great industry, by those who are interested in the practice of vaccination.

'Furious partisans, in their renovated mania, hoisted it as their bloody flag; and denounced vengeance on all who should dare to oppose it.

'Unterrified, however, by this vaccine bull, I carry on my siege as usual. Protected by the irresistible battery of truth, I disregard the impotent popguns of blockheadism.

'Great was the unreasonable expectation from the College of Physicians. Half-starved apothecaries trembled during their cow-pox gestation,' &c.

We have always deemed this cry of 'interested' motives in the vaccinators, as the most impudent of the falsehoods, which their opponents have thrown out against them. It is a fact, that all those members of the profession,* whose rank, reputation, and wealth,

* 'Even at present,' Dr. Moseley observes, 'vaccination has no other adversary' (except himself) 'among the members of the College of Physicians. The same solitary instance of cow-pox opposition is as remarkable among the College of Surgeons, in Mr. Birch!' Surely nothing but the utmost vanity and '*blockheadism*' united could have drawn from our author this unlucky admission. What! in the collection of human evidence,

place them above the suspicion of such motives, and whose practice is uninfluenced by the success of vaccination, approve and recommend it. It is a fact, that the cow-pox (which Dr. Moseley himself elegantly terms 'a *no*-disease') requires little attendance and less medicine; and that the small-pox, exclusive of after consequences and preparatory measures, invariably contributes to put money in the pocket of the practitioner. And it is also a fact, that eminent men (the late Dr. Woodville, for example,) have practised vaccination, in preference to the inoculation of small-pox, with an absolute diminution of their professional income; thus making a sacrifice to honest conviction, to humanity, and to a conscientious respect for *truth*.—When such circumstances are considered, where is the suspicion of interest? in him who supports, or in him who deserts a lucrative branch of his profession? We shall not insult the understanding of our readers by stating the obvious inference.

With regard to the validity of the testimony of the opposers of vaccination, the Report of the College contains the following assertions. 'From personal examination, as well as from their writings, they (the Coll.) endeavoured to learn the full extent and weight of their objections. They found them (the antivaccinists) *without experience* in vaccination, supporting their opinions by *hearsay information*, and *hypothetical reasoning*; and upon investigating the facts which they advanced, they found them to be either *misapprehended* or *misrepresented*:'—'the inventions of designing, or the mistakes of ignorant men.' This, Dr. Moseley thinks, is hard language, especially after *he* had been examined, and his pamphlets read by the President of the College. But 'let the galled jade wince.' Dr. M. has published his account of that examination; and we are satisfied that the College could not wish for a more complete justification of their assertions, than that with which he has thus furnished the public. Dr. Powell conducted the examination, and the questions and answers were committed to paper at the time.

'Q. 1. What is the extent of your personal experience respecting vaccination?

'A. *I never vaccinated;* but have had abundant personal experience in the disease.

'Q. 2. What is, in your opinion, the number of cases in which vaccination has failed ultimately to prevent subsequent small-pox?

'A. I have seen numerous cases of failure, and have published many; of the number of which *I have kept no account.*'

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are we to reverse the proceedings of universal custom and of common sense, and prefer the opinion, not merely of the minority to that of the majority, but of an individual to that of all the rest of his tribe? Is the exception to form the ground of our conduct and belief, to the exclusion of the general rule? This, indeed, were a 'new, monstrous, and unheard of' doctrine, too gross for even antivaccine sophistry and folly to maintain.

In the third answer, Dr. M. states his belief that vaccination has produced *new* diseases.

'Q. 4. What are such diseases?

'A. *I have described them in my publications* now before you on the table; to which I refer.' The fifth question is irrelevant. To the sixth, Dr. M. answers that he has met with some cases 'of failure, and also of sores and ulcerations,' since he last published on the subject.

'Q. 7. Please to mention the instances.

'A. *I decline giving the particular cases,* as I intend to publish them.'

To the eighth question he replies, that he believes vaccination 'to have a temporary but uncertain preservative power:' and to the ninth, that he has known 'several' instances of persons dying of small-pox, after having been vaccinated.

'Q. 10. If any, please to inform the committee what they are, and where the particulars of such cases can be learnt?'

'A. Such cases *may be found in my publications,* now before you; one instance has happened, since my last publication, at Stockwell.'

'Q. 11. Can you favour us with the number of failures you have met with since the time of your last publication?'

'A. *No!*'

'Q. 12. What are the peculiar appearances of the new cutaneous diseases which have appeared after vaccination?'

'A. *They are described in my publications* on the table. In respect to Edward Gee's case, I stated the fact from my own observation;' (what, *one,* only *one* case from personal observation?) 'I saw *that* child several times!'

Such was the luminous and instructive testimony of the oracle of the antivaccinists. *I never vaccinated—I have kept no account—I am ignorant of the number of failures—In short, I know nothing without my book in hand—There are my pamphlets; look to my pamphlets!!* In the name of reason, let us hear no more of Dr. Moseley and his opposition. Such contemptible evasions, such shallow pretensions to experience, such avowed ignorance of facts, unblushingly exhibited before a national tribunal of physicians, to whom he must necessarily be anxious to adduce his strongest proofs, must, in our opinion, convince every thinking man of the futility of this opposition, even if it were not the opposition of an individual to the united testimony of the Colleges of the three kingdoms, supported by the experience of the greater part of the world.

The truth is, our doughty antivaccinist was conscious that he had neither facts nor arguments to offer, and therefore resolved not to commit himself by direct answers. He knew, that, before his learned brethren, he could no longer act the merry andrew, and vapour about 'mania, and sieges, and batteries, and pop-guns,—

about ox-faces, and ulcers with cow's hair,' &c. with which he alarms the uninformed multitude;—he knew that something like reason and probability would be requisite before them; and therefore he wisely held his tongue, except now and then confessing his ignorance, where he could not prevaricate. Nevertheless, the College have given their decision; but whether they consider our author as one of the 'ignorant' or of the 'designing men,' or as partaking of both characters, we cannot pretend to determine.

One word more, as to the *hypothetical* origin of Dr. Moseley's opposition. 'I flatly deny,' says he, 'as far as respects myself, that the opposers of vaccination have been "*falsely* led by hypothetical reasoning." Such charges, having no foundation, may become the low mercenaries who have pestered the public in a cause which gives them bread;' (the Dr. speaks feelingly here: to which party in the cause does he allude?) 'but surely not the Fellows of the Royal College of Physicians of London,' &c. p. 55.

Not to mention that this is an erroneous quotation, the word '*falsely*' not being in the original, we shall again convict our author from his own words. We shall shew, that either his assertion just quoted is false, or that he is ignorant of the meaning of the word, hypothesis. He observes, in a note, p. 22,

'I began my opposition to vaccination in September 1798, three months after the doctrine was promulgated, on principles which time and experience have justified; no other person,' he states in the text, 'having then opposed vaccination.'

Is not this an acknowledgment, in plain terms, that he took up his opinion on principles, *which time and experience had not then justified?* which phrase we take to be a very accurate definition of an *hypothesis* in pathology. Nay, the Dr. absolutely states one *hypothetical* principle of his opposition. For, in answer to the assertion of the mildness of the cow-pox, in the College Report, he affirms:

'On this ground alone, were there no other, and were this the first time I ever heard of the cow-pox, I would oppose it; being certain that such a *no*-disease could not so change the disposition of the system, as to render it unsusceptible of any disease whatever,' &c. p. 56.

This statement of a paramount hypothetical argument for opposing vaccination, is, we conceive, a flat contradiction of the former statement, in which Dr. M. disclaims all hypothetical reasoning, and fully justifies our assertion of the dilemma above pointed out.

Since these considerations most materially diminish the credit due to Dr. Moseley's authority, our readers will not expect that we shall take farther notice of his account of the various *new* diseases of the skin, on which he again rings the changes, for the honourable purpose of creating alarm among the unthinking and illiterate multitude. Dr. Willan, certainly the highest authority upon this subject, has proved, both from his own observation, and by a reference to

the books of the Public Dispensary, Carey-street, that the diseases of the skin were the same, both in number and kind, when the cow-pox was unknown in London, as they are at present; and every practitioner of experience has recognised scrofula, scald-head, and itch, under every form described and nicknamed by Dr. Moseley, not only in cases where vaccination has never been employed, but even before it was made known to the world.

We should here have dismissed Dr. M., were there not one important topic, on which he has displayed the most consummate ignorance of modern research and information; we mean the subject of *contagion*. He has too much reverence for the sages of antiquity, to condescend to the perusal of the writings of his contemporaries: no physician after the time of Harvey and Sydenham, at least, is thought worthy of his notice. The College have expressed a hope, in the conclusion of their Report, that the general concurrence of mankind in the employment of vaccination will ultimately 'put an end to the ravages, if not to the existence of small-pox.' We trust that hope will be realized here, as it has been, in a great measure, in Vienna, in Stockholm, and other parts of the continent of Europe. But Dr. Moseley 'thinks he knows atmospheric diseases better than to hazard such a daring attempt at compromise with the Almighty.' p. 78. *Atmospheric* diseases! Now if there be a fact in medicine, ascertained upon proofs amounting almost to mathematical demonstration, it is, we conceive, this; that *contagion is neither engendered in, nor conveyed through, the atmosphere at large; but that its influence is limited to a short space around a diseased individual, or fomites, or to actual contact of these.* If Dr. M. should ask for the evidence of this truth, we refer him to the admirable writings of the late Dr. Lind, and of Dr. Haygarth; to the experiments of Dr. O'Ryan of Lyons; to the accounts of the progress of the Fever Wards of Manchester and Liverpool by Drs. Ferriar and Currie; and to the Reports from the Houses of Recovery in London, Dublin, Waterford, &c.: from all which sources, we can assure him, he will receive ample information on the subject; and hence may in future avoid the disgrace of such ignorant observations. Besides, has not the plague been staid, and both 'its ravages and its existence put an end to' in this country? And where is the 'compromise with the Almighty,' (if that canting phrase have any meaning), in subduing one disease, rather than another, or in employing any human means for the alleviation of any human calamity?

The author of the 'Expostulatory Letter' has exposed many points, not less weak and erroneous than those above alluded to, with considerable felicity and force; and to the lash of his criticism we leave Dr. M.

We shall now proceed to consider a more material question. Having received the satisfactory Report of the College of Physicians, the

Legislature of the country, convinced of the preventive efficacy of the cow-pox, and considering that, 'whereas the inoculation of persons for the disorder called the small-pox, cannot be practised without the utmost danger of communicating and diffusing the infection, and thereby endangering, in a great degree, the lives of his Majesty's subjects,' took up the question, in the last session of parliament, respecting the propriety of preventing the inoculation of small-pox, except under circumstances of seclusion, by which the risk of disseminating the contagion might be prevented. The bill stands over for future consideration. In the mean time, the propriety of the enactment of a measure, thus 'interfering with the right of private judgment,' has been impugned by Mr. Highmore, and defended by Mr. Murray, formerly secretary to the Royal Jennerian Society, and now to the Board of Vaccination appointed by Government. To some of the objections of Mr. Highmore, which apply only to the outlines of the bill, in its certainly crude state, we readily assent; but with respect to the general principle, which is supported in an able, candid, and perspicuous manner, by Mr. Murray, we agree with the latter gentleman altogether. It is the principle, he justly observes, upon which our law, and indeed all social and moral law, rests; upon which 'all our statutes and ancient writs, for preventing intercourse with persons infected with the plague and leprosy,' were framed; as well as 'the numerous and highly penal provisions respecting quarantine:' and it is the principle expressed and acknowledged in the continued enforcement of our law maxim, *sic utere tuo, ut alienum non lædas.*

When it is considered, that the inoculation of small-pox contributes to multiply and perpetuate the disease, by its infectious quality;—to give it origin, where it would not otherwise appear; and to extend it, whither it might never be otherwise conveyed; and that, in this manner, the mortality from the small-pox has been actually augmented, since the introduction of inoculation, instead of being diminished; it is rather to be wondered, that no legislative interference should have been resorted to, even before the benign and non-contagious substitute, the cow-pox, was discovered, in order to save the community from the mischiefs thus committed by individuals. On this point the opponents of variolous inoculation founded their most efficient objections; and in this respect the Wagstaffes of the eighteenth century had greatly the advantage over their imitators, the Moseleys of the nineteenth century. 'How far the legislature,' said Dr. Wagstaffe, 'may think fit to interpose, in order to prevent such an *artificial way of depopulating a country*, is not my province to determine; but if any one should wilfully set an house on fire, and from thence lay the neighbourhood in ashes; though in the first house it should be happily extinguished, he would unquestionably be accounted guilty *of burning down the whole*, and receive punishment

suitable to so *general a destruction.*'* Again, he remarked, 'as it (inoculation) tends to begin, to propagate, and to continue an infection in a place, which otherwise would be free from it, 'tis repugnant to common sense, of the most pernicious consequences to a populous and trading city, and entirely destructive to the good of the public, and the very being and intention of a community.'†

How much more just are these observations at present, when a substitute, incapable of injuring others, is within every person's power? It was feelingly remarked, by a highly respectable governor of the Small-pox Hospital, previous to the interdiction of the inoculation of out-patients at that institution, that he could not but consider himself, in some measure, responsible for the numerous deaths, deformities, and diseases, then occurring from the general diffusion of small-pox, while that hospital continued to spread the contagion so widely.

In short, there can be no question, we apprehend, as to the propriety of some legislative interposition, to curb the murderous hands of the inoculators of small-pox: a difference of sentiment can exist only in regard to the means of coercion, and the degree of restraint to be imposed. Let us hope that the '*suaviter in modo*' will be the first consideration, in interfering with the feelings of a British public: but, let us also recollect, that half measures were altogether futile, in such an affair, and that it will be equally necessary to pursue the '*fortiter in re.*' It is but just, if the feelings of individuals be so far respected, as to allow them a free choice of inoculation, that they should be compelled, in making that choice, to respect the feelings of others, and therefore restrained from endangering the public health, by the means which they adopt for their private security.

The eruption described by Dr. Pew, is the imperfect small-pox, which sometimes succeeds to vaccination, as is mentioned in the Report of the College. Dr. Pew justly maintains, that it affords no sound objection to the vaccine practice.

Some observations on the progress of vaccination, during the past year, will be found in the *third* part of the Register.

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* See 'A Letter to a Friend,' shewing the danger and uncertainty of inoculating the small-pox. By W. Wagstaffe, M. D. F. R. S. Fellow of the College of Physicians, &c. p. 39.

† Ibid. p. 62.

ART. XX. *Riddellian System; or, New Medical Improvements; containing a concise Account of the Advantages to be expected therefrom, with some illustrative Examples.* By Colonel Riddell. 8vo. pp. 113. Ridgeway.

THE author of this treatise, not satisfied with the titles of gentleman, soldier, and man of honour, is ambitious of obtaining preferment in the ranks of quackery; and as presumption generally secures distinction in that calling, Colonel Riddell has considerable chance of succeeding. His rivals are usually too ignorant, and their pretensions too suspicious, to effect much by writing books; they, therefore, content themselves with advertising their specifics, and concluding their puffs, with some extraordinary case or wonderful cure. The colonel, however, strikes at nobler game, and is certainly a man of some talent and education: he has occasionally, indeed, amused the readers of the Gentleman's Magazine, with marvellous accounts of resuscitating dead fish, and other singular exploits; but the whole of the present work is written with sober seriousness, and in order to obtain important ends; for the developement of which the reader is prepared by a quotation in the title page, extracted from the above-mentioned Magazine: 'Be it known to the Royal College of Physicians, as well as to the world at large, *and which I am willing to prove before them,* that by a counteraction to antimony, depriving it of all its deleterious and baneful qualities, combining it with other medicines, and tempering them as occasion may require, making them *act* and counteract each other, I can subdue any fever known in this country in a *few hours,*' &c. To this we shall reply, by a motto which the author has placed immediately before the preceding lines, '*magna est veritas, et prævalebit;*' the truth certainly will prevail, and Colonel Riddell will be discovered to be an arrant quack. We will help him to a citation, which he may insert in the next edition of his pamphlet, (for we believe the number of foolish people will be sufficiently great to consume more than one impression):

> 'Such my applause, so mighty my success,
> I once thought my predictions more than guess.
> But, doubtful as I am, I'll entertain
> This faith, there can be no mistake in gain:
> For the dull world must honour pay to those,
> Who on their understanding most impose.' *Garth.*

This work is prefaced by a spirited, eloquent, imposing, complimentary address to the members of both houses of parliament, calling their attention to the fatality which so frequently pervades our fleets and our armies. After expatiating upon the sufferings of our brave seamen and soldiers, from the ravages of the yellow fever, and other tropical disorders, Colonel Riddell observes, that 'this circumstance

alone would sufficiently plead my excuse for the liberty I have now taken; as my *sole* design is to inform you (the members of both houses of parliament), that I have, by long study and considerable practice, discovered a safe and efficacious medicine, which effectually cures and eradicates every kind of fever in a short time, and which *I have every reason to believe*, will put an end to those inexorable devastations of the human species.' He then very kindly offers himself, his system, and his medicine, (for until the secret be purchased, they are inseparable,) to combat these destructive maladies; and concludes his address, by beseeching the noble and honourable members, individually, to peruse his treatise, that they be enabled to form an opinion, whether it is not incumbent upon them, as legislators, 'to support and countenance a discovery, which bids so fair to become a supreme blessing to our own country in the first and pre-eminent instance, and afterwards to mankind in general.'

Before he announced his splendid discovery, Colonel Riddell was desirous to obtain a diploma in medicine; but, strange to relate, notwithstanding his affected philanthropy, and the benefit he was about to confer on mankind, backed by the interest of the Earl of Leven, that honour was denied him by a Scottish university. A soldier, however, is not to be appalled by ordinary difficulties; and our febrifuge colonel not being admitted within the pale of medicine, has with becoming spirit attacked the respectable body of men with which he was solicitous to have been associated; and has very skilfully attempted to render the appellation of quack less contemptible than it is generally regarded. We do not think his reflections upon '*regularly bred*' practitioners, though illiberal and unjust, of sufficient importance to claim our attention; being aware, that if a man wish to introduce a nostrum, he must, in justice to himself, abuse the regular professors of medicine.

We shall now inform our readers what Colonel Riddell professes to accomplish with his '*counteraction to* antimony.' Besides being able to 'subdue any fever known in this country in a few hours,' it is a specific in *bilious diseases of every kind*. '*All* the complaints of children; small-pox, measles, and hooping cough not excepted, are rendered by it mild and *harmless*—it cures scarlatina, consumption, worms, fits, dropsy, pleurisy, insanity, ophthalmia, syphilis, &c. &c.' Chronic disorders in general yield to its virtues, it protracts life, and has the miraculous power of 'kindling in cold veins the spark of love,' for, it cureth impotency! 'Such, also, (observes the colonel), is the peculiar enmity which subsists between my applications and all local inflammation, that burns of the worst kind, and the stings of venomous animals, are cured by them in a short time; and nothing more speedily gives way to this treatment, or with more entire safety to the patient, than the cruel paroxysms of gout.' In confirmation of the preceding assertions, some cases are related, but in a manner so vague and unsatisfactory, that they can impose upon the

ignorant alone—we do not doubt that some of the patients supposed that they were cured of serious maladies; but *we* must have better evidence of the nature of their illness, than the certificates of magistrates, the testimony of interested persons, or the letters of the ladies and gentlemen of fashion, who visit Cheltenham during the season. Besides, the colonel has totally concealed his failures, some unfortunate instances of which have reached us; and if any thing were yet wanting to demonstrate his vanity and assurance, the concluding lines of his book were sufficient. After enumerating some of the difficulties which his system encountered before it arrived at maturity, he observes, 'I have nevertheless persevered, and *like the Princess Perizade*, in the beautiful allegory related in the last story of the Arabian Nights' Entertainments, have taken *Hippocrates* and the *spirit* of the *late Dr. James* as my guides; I have ascended the hill, and gathered, not the golden water, but what may be fairly called the golden powder, presenting a shield against all inflammatory fevers and complaints, at which even death drops his dart and averts his head, seeking victims to glut his insatiate maw in the discord of the rulers and councils of surrounding nations!!!' When they have perused the above astonishing sentence, our readers will perhaps not be surprised to hear, that the colonel anticipates a splendid parliamentary remuneration: in which case he will unfold the riddle. Were our senators so infatuated, we should indeed despair of our country: and we are not entirely divested of fear on the subject; for, not to mention the ladies, several noble and honourable members of both houses have already sanctioned this libel upon their understandings; and we have even heard it asserted, that the colonel is 'a very proper man' to be sent out to clear the West Indies of the yellow fever.

It would not be doing justice to Colonel Riddell, or his facetious correspondents, if we did not insert one of their letters.

'Cheltenham, April 19th, 1806.

'My dear colonel, you have heard of Hermippus Redivivus: I am *not Hermippus*, but I am *Redivivus*, through your benevolence and skill. Things go on *à la merveille*: I have eaten like a porter, slept for two hours since like a dormouse, and am now all alive and merry.* When I hear you talk of the potency of your medicine, I shall raise my voice and say, *probàtum est*. Prometheus, we are told, made a man by infusing the ethereal spirit into his clay; and you with your powder may be said to relume the light of life, and make it burn with new vigour and brightness, when dying in its socket, or shorn by disease of all its cheering beams. I long for to-morrow, that I may learn the effects of your panacea on my admirable friend Mrs. Hannah More. The restoration of her health would be a public benefit. To-morrow night you may perhaps judge it expedient to send me a third dose of your incomparable medicine; yet in one respect it is ill adapted to these times, as it would tempt many a man to eat himself out of house and home.

'I am, &c. THOMAS S. WHALLEY.'

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* N. B. This is a *reverend* gentleman.

ART. XXI. *On Hydrophobia, its Prevention, and Cure; with a Description of the different Stages of Canine Madness: Illustrated with Cases.* By Benjamin Moseley, M. D. Physician to his Majesty's Royal Military Hospital at Chelsea, &c. &c. 8vo. pp. 34. Longman & Co. Cadell & Davies, J. White, &c. &c.

FROM the title of this pamphlet, and the respectability of the publishers, we anticipated some interesting information upon the subject of which it treats; but after an attentive perusal, we have reason to believe, that these worthy bibliopolists have rather associated together, to share the loss, than to divide the profits of the work.

During the last two years numerous instances of canine madness occurred in different parts of the kingdom; many people were bitten, and some of these became the victims of hydrophobia. Much alarm was consequently excited, and Dr. Moseley, affecting to be a philanthropist, inserted a description of this horrible disease in one of the fashionable newspapers, to the great terror and amazement of the fair readers of that paper. But, he informs us, the demand for the Morning Herald, which contained his essays, was so great, that 'many hundreds of people, who wished to obtain an impression of one, or more of them, were disappointed.' He has therefore reprinted his essays, with some additional observations, in the form of a pamphlet; and observes, with a degree of assurance, not unusual with those gentlemen who favour us with cases in the daily papers, 'that there has never been an accurate description of hydrophobia, and a succession of the symptoms of canine madness, *before* given to the world.' Now, with the exception of a pamphlet by Mr. Lipscomb, we know of no modern publication on the subject of hydrophobia so defective as the present performance, the object of which is evidently the same as that of quack advertisements in general. It is therefore part of the author's plan to abuse preceding writers, rather than to digest the information which is contained in their works; and to insinuate, 'that since the separation of physic and surgery into distinct professions, every physician, and every surgeon, are not qualified to undertake complicated cases,—such as wounds from rabid and venomous animals, with their consequent diseases.' But as Dr. Moseley asserts, that he has the power of curing a disease, which, when once established in the system, is generally deemed incurable, his readers must infer that he is happily possessed of the combined talents and acquirements of the physician and the surgeon, and is consequently pre-eminently qualified for treating this complaint. We therefore feel it incumbent upon us to state that Dr. Moseley has thrown no new light whatever upon the subject; that he is obviously unacquainted with many particulars respecting hydrophobia, detailed by preceding writers, viz. Mead,

Fothergill, Hamilton, &c. &c.; and we shall prove that his method of cure, or rather of prevention, was recommended long before his time. Of the two cases which he has published, and which form the principal part of this pamphlet; the first terminated fatally ten hours after the author was consulted. The other, which Dr. M. assumes the merit of curing, was more properly an affection of the mind from fear, than an instance of rabies; it occurred in a woman, who, judging from the particulars of the cure, as related by the author, we deem to have been no more affected with rabies than was the dog which bit her: indeed any country gentleman would, without hesitation, have pronounced the dog to have been affected by the disease so well known by the term of the distemper. The method of prevention, for we will not be so inconsistent as to call it cure, as we have before stated, is not new; it consists in 'cutting out or destroying the injured part, and afterwards applying caustic.' If, however, this have not been resorted to at a sufficiently early period, and be not deemed safe or effectual, recourse must be had to mercurial friction to a great extent, antispasmodics being at the same time administered internally. We shall not quote half the authorities which occur to our recollection in favour of this treatment. It was acted upon by Dr. Fothergill, though not to the extent recommended by our author; and its efficacy has been attested by writers previous to Lieutaud and Sauvages, both of whom urge the free use of mercury.

We shall detain our readers with but one other remark. Dr. Moseley in his title page announces a description of the different stages of canine madness; and though he boldly asserts that the disease has not yet been properly described, all that we have been able to find upon the subject is contained in the following sentences at the bottom of the last page but one:—

'It has been customary to call this disease by the general name of hydrophobia, but that is incorrect; *therefore* I divide the disease into three stages. I. *Hydrophobia*, or the dread of water. II. *Dyscataposis*, or difficulty in swallowing, and choking. III. *Rabics*, or convulsion, attended with vehement spitting, and frothing at the mouth.'

The name of hydrophobia is certainly incorrect; but why Dr. Moseley should therefore make the dread of water constitute the first stage of the complaint, we are at a loss to conceive. This symptom does not occur in the commencement of the disease either in dog or man; and unless the patient has been alarmed from being acquainted with the symptoms of rabies canina, it never comes on till some difficulty in swallowing, or a spasmodic affection of the muscles of the pharynx, have been experienced. When these have been affected, the sight alone of water will sometimes bring on a violent paroxysm. But it is needless to offer any further remarks upon a writer who is so wilfully ignorant of the subject which he professes to treat; and we sincerely commiserate the condition of

those unfortunate beings, who, on the slightest grounds, are condemned to undergo a merciless salivation, which ample experience has demonstrated to be perfectly unavailing in the cure of rabies canina; while the prevention depends entirely on local treatment, early applied, and vigorously pursued.

ART. XXII. *Remarks on the Frequency and Fatality of different Diseases, particularly on the progressive Increase of Consumption: with Observations on the Influence of the Seasons on Mortality.* By William Woollcombe, M. D. 8vo. pp. 155. Longman & Co.

AN inquiry into the changes which time occasions in the frequency and fatality of different diseases, is equally interesting to the political economist and the physician. In the estimation of the former, indeed, the subject has lately assumed a greater degree of importance from the speculations of Mr. Malthus, who has assigned to disease a material agency in regulating the course of population. It is perhaps not one of the least advantages, in a philosophical point of view, which large medical charities possess, that the prevalent degree and disposition of disease is brought under constant observation, and thus an abundant store of facts is collected within a small compass, easy of comparison with the state of the season, the supply of provisions, and the various other sources of health and disease, as well as with the result of similar inquiries at preceding periods of time. Dr. Woollcombe is physician to a dispensary at Plymouth, and has availed himself of the opportunities thus afforded him for the prosecution of such an investigation; to which, he informs us, he was incited by a perusal of Dr. Heberden's work on the increase and decrease of diseases. He has, also, compared the results of his experience at the dispensary, with the facts of a similar nature from other sources, in different parts of the country, where such could be obtained. We must acknowledge, however, while we give due credit to the author for the industry with which he has collected his materials, and the ability manifested in his comments, that we discover nothing in this volume which can be deemed *new* by an inquirer in any degree accustomed to such researches. In the short period of seven years, indeed, in which, with the exception of one year, (1799), the seasons have been temperate and regular, much important evidence could scarcely be expected to be obtained, particularly from the records of an institution, where the average annual admissions do not much exceed six hundred. The total number is but 4409. It is to be wished, therefore, that Dr. Woollcombe had been in less haste to wield the pen.

The volume opens with a table of the diseases admitted at the

Plymouth Public Dispensary from November 13th, 1798, to August 31st, 1805. Three columns are annexed, containing the number of deaths, the proportion of deaths from each disease, and the proportion of deaths from each disease to the total mortality. This is followed by four other tables, arranged from the first, so as to shew some of the leading points of inquiry. In table II. the diseases are arranged in the order of their frequency of occurrence; in table III. the diseases, from which fatal events occurred, are arranged in the order of their fatality, relatively to each other; in table IV. the same are arranged in the order of their fatality relatively to the number of cases of each disease, as stated in the last column of table I.; table V. contains the proportion of fatal cases in each of the seven years.

The leading circumstances, therefore, which are intended to be established by these tables, relate to the fatality of the different diseases. Being not altogether unacquainted with the practice of dispensaries in this metropolis, we must aver, that we felt some degree of unwillingness to receive these statements with implicit credit, as affording the true proportion of fatality among the lower classes of the inhabitants of Plymouth. For we know, that unless this point is observed with greater accuracy there, than is found practicable in similar institutions in London, the *termination* of the diseases generally is, of all the circumstances, that upon which the records of dispensaries are particularly deficient. We know, that at these institutions an account of the termination of little more than *one half* of the cases is received. It is true, that a majority of these, from the nature of the disorders, obviously are instances of recovery; and it must be supposed, that, as the dangerous cases are attended at home, the physician, if he does his duty, must be acquainted generally with the deaths, although not reported to the institution. Of the deaths from acute diseases, we admit, he cannot be ignorant. But the greater number of deaths, in the practice of dispensaries, arises from chronic disease. Now, an occasional attendance upon such disorders is all that is requisite, while a regular report is transmitted to the dispensary: and it must be well known, to those who are experienced in such practice, how often the caprice of patients lingering in chronic disorders occasions them to change their physicians, to desist from sending to their dispensary, to remove to the country without any notice, and how often their friends cease to require the assistance of the dispensary, when the case appears to be decided, although some time previous to death. All these circumstances tend to throw a shade of doubt over the inferences deduced from dispensary registers, in regard to the fatality of diseases.

On the other hand, it is but fair to observe, that, in a provincial town, where the number of patients is smaller, the means of communication easier, and the number of public charities and practition-

ers, which facilitate a change of medical advice among the poor, is also less, the impediments to accuracy on this point are probably not so great, as in London. And we are farther led to believe that greater accuracy is actually attained, by observing afterwards (see table VII. p. 105), that the proportional mortality at the Dispensary at Plymouth is stated considerably higher, than that at a similar institution in London;—a proportion which, we believe, approximates very nearly to the truth, if applied even to the practice of a London Dispensary; namely, *one* death in 13.7 cases.

One or two observations have occurred to us, in perusing these tables, respecting the difference of the modifications of a few common disorders, as they occur at Plymouth and in London, which a knowledge of the medical topography of the place (a point, by the by, which we are surprised that Dr. Woollcombe has omitted to notice) would enable us to explain. It appears that rheumatism and pulmonary inflammation are much more common in their acute form at Plymouth, than in the metropolis. More than one third of the cases of rheumatism are of the acute form, viz. 88, 160 being of the chronic form; and the cases of acute pneumonia amount to 138, whilst those of simple catarrh are only 142. According to Dr. Willan's Reports, the cases of acute rheumatism are to those of chronic as 1 to about 2.5; according to the more recent Reports from the same dispensary, as 1 to 3, or thereabouts, (Edin. Med. and Surg. Journal.) According to Dr. Willan's Reports, again, upwards of 12 cases of catarrh occur to 1 of pneumonia; and in the Reports just alluded to, the proportion of acute cases is considerably greater. But the most remarkable circumstance is, that the number of cases of *pulmonary consumption*, in the south-west of Devonshire, greatly exceeds even those of common catarrh, as well as those of pneumonic inflammation, amounting to 198 cases; *i. e.* in the proportion of 1 in 20.25, if we take the number at 4010, which Dr. Woollcombe here uses: or 1 in 22.21, if we take the total number of 4409. Calculating the proportion of phthisical cases from Dr. Willan's Reports, for one year, *e. g.* 1797, we find that phthisis occurred only in the proportion of about 1 to 26, in London: or, on an average of three years, in about 1 in 29. In this instance, we more particularly feel the deficiency of medical topography, which might afford us the means of explaining the fact, that even in that province, which is deemed the most salubrious, the garden of the island, phthisis is more prevalent than in the centre of this metropolis, where it should seem that the causes which conspire to induce consumption, especially among the lower and labouring classes, exist in abundance. For it must be remarked, that the instances enumerated in Dr. Woollcombe's tables, are not among those who seek that mild climate for relief; they are the pauper patients of a dispensary.

We learn, also, from an examination of these tables, that fever at

Plymouth, as in London, was extremely prevalent in the years 1800 and 1801, since which time it has gradually decreased. But to return to our author's commentary.

Dr. Woollcombe's inquiries corroborate the statement of Dr. Heberden, that the absolute and relative mortality from consumption has been regularly increasing during the last century; and he gives us this alarming calculation:

'From an examination of the two parts of the 6th table it appears, that during the last half century the proportion of consumptive to general mortality has been as 1 to 4. 2. But as the consumptive mortality may be comparatively less in the country than in towns, from which the grounds of the calculation have been chiefly derived, to avoid exaggeration, let the proportion for the kingdom at large be stated to be as 1 to 5. If this be admitted as just, and if it be granted that the annual mortality is to the population as 1 to 40, while it is ascertained that the inhabitants of Great Britain amount to eleven millions, it will be found that the *annual victims to consumption in this island* are not less than FIFTY-FIVE THOUSAND PERSONS.' p. 72.

Dr. W. states that, of the 269 cases under the head *febris*, 218 were typhus. This is obviously a small number, compared with the occurrence of typhus in Liverpool, Newcastle, and some other large towns, and implies, that the lower orders of people are better accommodated in their habitations in Plymouth, than in those other towns just mentioned. Dr. W. supposes the relative occurrence of fever to other disorders, to be in Liverpool, as 1 to 5; in Newcastle, as 1 to 10; in London, as 1 to 13; and in Plymouth, as 1 to 18. This calculation is probably correct as it relates to the years 1799 to 1801 inclusive, when typhus prevailed extensively in the three first-mentioned places: it is altogether inapplicable to the state of disease in London at present, and since the year 1802. Typhus is now, comparatively speaking, a rare occurrence in dispensary practice.

Dr. Woollcombe gives eight tables of documents, from various parts of the island, illustrative of the effects of the seasons on mortality; and the average inference is, that the different months are favourable to health in the following order; viz. July, the most healthy, then August, June, September, October, November, May, December, April, February, January, and, lastly, the most productive of disease, March. This series, to the correctness of which every observer of disease in this country will join his testimony, is almost the reverse of the ancient series, occurring on the shores of the Mediterranean. 'Saluberrimum ver est,' says Celsus, 'proxime deinde ad hoc hiems; periculosior æstas; autumnus longè periculosissimus.' Dr. W. adverts to the gross error of the prevailing opinion, respecting the influence of the weather on diseases, which Dr. Heberden proved to subsist in opposition to the evidence of the clearest facts. Dr. Fothergill long ago remarked, that 'an excess of wet, with moderate warmth, is not so injurious to our

constitutions, as a severe cold season;' and again, that 'no weather is in common so little productive of acute and fatal diseases, as the warm and the moist, nor any so dangerous in these respects as the opposite.'* This has been corroborated by Dr. Willan and other Reporters; and Dr. Heberden demonstrated its truth, in the effect of the two contrasted winters of 1795 and 1796.† The fatality of the frosty winter was nearly double that of the mild and wet one. Dr. Woollcombe has added nothing to this now well-established fact.

ART. XXIII. *Modern Medicine; containing a brief Exposition of the principal Discoveries and Doctrines that have occasioned the recent Advancement of Medical Philosophy, with Strictures on the present State of Medical Practice; and an Inquiry how far the Principles of the Healing Art may become the Subjects of unprofessional Research.* By David Uwins, M. D. Member of the Royal College of Physicians, London, and Author of the Medical Articles in Dr. Gregory's Encyclopedia. 8vo. pp. 199. Tipper.

ALTHOUGH the size of this volume by no means corresponds with the very comprehensive title which the author has prefixed to it, and we could not easily discover how the numerous and important topics, which it is said to contain, could be properly canvassed in so small a space, we were not disposed to find fault with him, because we hoped, that, by a philosophical arrangement, and a condensed and perspicuous style, he had succeeded in reducing the discussions within smaller compass than at first sight we conceived could have been easily done. This certainly is a species of merit of no common kind, and we gladly ascribed to the author all the credit which it deserves. We therefore flattered ourselves, that we should see *modern medicine* reared upon its proper foundation, the importance of medical philosophy ascertained and vindicated, and its objects and boundaries distinctly pointed out. This being accomplished, we pictured to ourselves the author successfully advancing in the subordinate investigations, submitting all his conclusions to the test of a rational and enlightened logic, tracing the rules by which our inquiries into the different departments of the science should be conducted, and, finally, by displaying its connexion with the other branches of human pursuits, illustrating its influence on the happiness and comfort of society.

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* Observations on Weather and Diseases, Nov. 1751, and Dec. 1757.
† Phil. Transact. for 1797.

Such are the notions which we attached to medical philosophy; and we are persuaded, that the path which we have sketched must be followed by every man, who expects to make any progress in that study. It is by extended and comprehensive views of this kind, that medical men are to arrive at the principles of their art; and it is by the same means that society ought to be taught how to appreciate the labours and character of the physician. Science has been too long a stranger to medicine; whatever, therefore, pretends to enlighten us on that subject, will always claim our particular attention; because it must either confer a singular benefit on the profession, or contribute to retard its progress, by encouraging and disseminating an incorrect and slovenly mode of reasoning, and prolonging the reign of prejudice, by elevating false standards of wisdom and truth.

These considerations induce us to treat this production with a greater degree of seriousness and attention, than its own intrinsic merits can claim. Had its pretensions been more modest, our labour might have been spared: a detail of the author's experience, or his remarks on practical points, might have been passed without much animadversion; but we never can look with indifference upon any attempt of a higher description, upon any investigation, the object of which is to lead the mind of man in his search after truth, and to elucidate the principles of one of the most interesting arts that can occupy his attention. The popular cast which the author has endeavoured to give to his performance, and his design of adapting it to the taste of the 'unprofessional' reader, may, perhaps, be urged as reasons of dissent from this decision. We have weighed these arguments, but do not feel in the slightest degree inclined to allow them any force. Indeed we are thereby rather disposed to augment the rigour of our examination: because these very considerations ought to have rendered him doubly cautious in all that referred to the general execution of his work, in giving currency to any statement which was inconsistent with philosophy, or which could be the means of diffusing error, by conveying inaccurate and imperfect views of the spirit and tendency of all medical inquiries.

Having now stated, in a general manner, what we conceive to belong to this subject, and what we believe will not be contradicted by any one who has given the smallest attention to the theory, either of our own or any other science; we proceed to take such a view of the work before us, as will tend to fix its character, and enable the reader to judge of the talents and capacity evinced by the author.

Were we disposed to afford illustrations of the causes which have impeded the advancement of medicine; to point out the enormous abuses of general and undefined terms, with the baneful influence which they exert upon all scientific pursuits; and to exhibit the effects of a bad logic both upon medical theories and medical practice; we should not have occasion to seek for them any where else

than in this very book, which professes to treat of the *advancement of medical philosophy*. There is certainly no branch of medicine which required more scrupulous attention to all these particulars, than the one which the author has chosen. Convinced, as we ever must remain, of the truth of this observation, we were not a little surprised, on encountering, at the very outset, a turgid and unnatural form of expression, an insufferable redundancy of figurative phraseology, and an affected appearance of superior penetration, supported by nothing but awkward, and, in most cases, highly incorrect applications of words and phrases. This led us to augur very unfavourably of the execution of the performance; and we were perfectly satisfied, at a very early stage of our labour, that the author's talents were not of the description required for the successful completion of his task. Let us not, on this account, be accused of hasty judgment. We began the perusal of the work with high notions of its importance, and with gratitude to the author for undertaking it. The following sentence, however, we must confess, excited in us feelings of a very different description:

'A prominent characteristic of the present times is a species of intellectual democracy, constituted by that spirit of universal investigation, that indifference to prescription, and defiance of authority, which we find conspicuously prevalent not only in respect to the cultivation of literature and general science, but which has extended its influence to the professions, and has perhaps more especially operated upon the profession of medicine.'

Although this tremendous combination composes the first sentence of the first page of this book, we were not appalled, but went on boldly, till our attention was again arrested by what follows, at p. 3.

'Man is proverbially prone to extremes and to error: it is, moreover, a singular fact, that the same constitution of mind which favours implicit belief, facilitates also the influence of doubt. Those optics which are most easily dazzled by exterior splendour and artificial colouring, are by this process blinded to the interior and essential, when the exterior and adventitious is removed. The curtain is drawn, and all behind it is a blank. The awfully obscure of medicine is abrogated; and, therefore, medicine itself is a mere trick.'

We passed over the first sentence, which so pompously announces a proposition that is pretty nearly identical, and made an attempt to comprehend what is contained in the succeeding ones. We failed at that time, and our subsequent endeavours have not been more successful: to us they were 'awfully obscure,' and the obscurity has not yet been 'abrogated.' The ridiculous mixture of metaphorical and literal expression renders the passage quite unintelligible, and it may be made susceptible of a great variety of interpretations, all equally remote from simplicity and truth. How can a person, we asked ourselves, who writes in this manner, 'instruct the professional student;' how can he interest the man of '*general intelligence*;' or

'fashion into one body, the various members of which modern medicine is composed,' and, 'at the same time, attempt to mould this mass into such form as not to terrify the uninitiated beholder?' *Introduction*, p. iv.

If our readers are not already *terrified*, they will probably be able to answer these questions before we arrive at the conclusion. In the meantime we have one or two remarks to make on the doctrine announced in the contents of the introductory chapter. It nearly satisfied us as to the nature of the book, and would have induced us to put an end to our criticism, had we not hoped to derive some advantage from pointing out some errors of the author. This chapter treats of the 'peculiarity of the times,' and 'the necessity of the adaption of writings to this peculiarity:' it declares, also, the 'nature and objects of the present treatise' in the terms which we have quoted at the conclusion of the last paragraph. The 'peculiarity' alluded to, is described in the first extract that we have made from this work. But even granting the *intellectual democracy* to be as prevalent, and the *indifference to prescription* to be as complete as the doctor so acutely and learnedly supposes; we are so blind as not to be able to discover the '*necessity*' of adapting the pursuit of science to any 'peculiarity' which science itself does not recognise. We mean not to accuse him of paying much attention to what science requires; but we think it right to tell him, that no man, who does not compose merely to catch the passing approbation of the day, will ever pay the slightest attention to a necessity, which is generated by any combinations of accidental or adventitious circumstances. Philosophy disclaims such limitations; and we hold every attempt to shackle our investigations by such restrictions, as unwise and pernicious. It can never be too strongly impressed upon the mind of every inquirer, that to separate the decisions of wisdom and truth from the local, superficial, and ever varying opinions, of the unthinking part of society, is one of the most important duties of the philosopher, and that no one is entitled to that name, who does not pursue this duty in defiance of every obstacle.

The second chapter contains 'an historical sketch of the progress of medical discovery.' A philosophical history of medicine is still a desideratum, and we believe is the only one which is well suited to illustrate the causes that have either hastened or retarded the progress of medical improvement. Such a 'sketch,' however, as our author presents, cannot contribute much to this purpose: he has borrowed it almost entirely from Dr. Henderson's translation of the elegant work of Cabanis; and, abstracting what is derived from this and other sources, we do not find one single fact or observation, that affords the most trifling testimony in support either of the author's erudition or sagacity.

Had the subject of the third chapter been properly discussed, it might have proved eminently useful. It proposes 'to inquire into

the nature and objects of system, as well in reference to that particular science, to which our attention is principally to be directed, as to the acquisition of knowledge in general.' p. 23. The object of the author, in this disquisition, is to examine 'the much agitated and still contested question concerning system and experience.' p. 25. This question is never agitated but by those who do not comprehend its meaning; and, from all that we can learn, we suspect that the author himself possesses very limited and obscure notions upon the subject. He tells us, in a sort of oracular, unmeaning jargon, that those 'who contemn reasoning and commend empiricism,' are 'not perhaps aware that experience and empiricism, the gods of their idolatry, are themselves system. To experience, is to know; to know, is to infer; to infer, is to reason; and to reason, is to systematize!' p. 25. Although the author seems thus to display his skill in mode and figure, we must dispute his authority, and beg leave to remark, that there is not one proposition which is either precisely or accurately stated. The whole passage, indeed, we hold forth as a most choice specimen of his logical powers. The 'capacity' which he has here evinced 'for generalizing particulars,' (p. 26), may to himself appear as a sure indication of a superior mind, and he may perhaps be flattered with the reflection of having reduced the whole act of reasoning within the scope of one short sentence. We trust, however, that the brilliancy of his discovery will not 'dazzle the optics' of any of his readers; and we would entreat of them to reflect, that vague assertions of this kind have uniformly been detrimental to science. The terms of which they are composed, are so general, that there is not one which might not have been substituted for the other; and the author would have conveyed equal information to the mind of his reader by gravely stating, that *to reason is to reason, to infer is to infer, to know is to know; or to systematize is to infer, to infer is to experience, to experience is to know*, &c. &c. This vice is much too prevalent in almost all medical writings. We hope that the day is approaching, when it will be treated with deserved contempt by every man who belongs to the profession. It might have answered the purpose of a syllogistic wrangler; but it never will be adopted by any man who has accustomed himself to the rigid severity of scientific investigations.

'The numerous causes of error to which a system is obnoxious,' the author thinks may 'be included under four general heads; to which, for want of more appropriate terms,' he applies 'the denominations of Empirical, Hypothetical, Metaphysical, and Physical.' p. 27. We were not very certain what was to follow this enumeration; but, as far as we comprehended the question, we were most decidedly of opinion, that it was almost impossible to fix upon *terms*, which, in every respect, were more inapplicable to the different parts of this inquiry, or more entirely at variance with the precision and simplicity of philosophical language. We were inclined to hope,

however, that, under these high sounding names, might be concealed the elements of a comprehensive and useful medical logic; that, in the author's hands, they might assume a signification different from what we had been accustomed to affix to them; and, by being strictly defined, might serve the purpose of denoting the divisions into which he had thought proper to distribute his subject. But, on examining a little further, we found, that our anticipations had been altogether erroneous. We should not have troubled our readers with the following definitions, did we not consider them necessary to illustrate the observations that we are about to make.

'The first' (*i. e.* empirical) 'may be defined that system which makes wrong inferences or hasty deductions either from an omission or erroneous arrangement of some of the materials out of which it is formed. Thus, if I find opium to relieve pain, and meeting with pain in another individual, I find the same effect result from its administration; if, in consequence of these observations, I predicate of opium, that it is universally an anodyne, I come to a conclusion that is empirical.'

'An hypothetically erroneous system is that which draws conclusions from a supposed, but not justly conceived similarity between phenomena that are not so immediately obvious to our senses. Thus, if discontented with the mere circumstance of pain being mitigated by opium, I ascertain some other effects which have followed its use, and infer that it is by virtue of its producing these latter the former has been occasioned, my inference is hypothetical.'

'A system which is metaphysically erroneous, is formed upon our supposed capacity of penetrating into the arcana of nature, in a manner that is denied to human intellect; or, as it has been well expressed, from "the groundless belief that we are acquainted with the nature of causation;" a belief which led the ancients into all their mistakes, and engendered that barbarous abuse of human powers, which goes under the name of scholastic philosophy.'

'The physical errors of systematizing are constituted by endeavours to adapt the terms and apply the doctrines of one department of science to that of another, the phenomena and laws of which are widely different; and of using words to express facts, without having previously attached a precise signification to the words themselves.' p. 29.

Of the latter fault the author has been guilty in the highest degree throughout every part of his performance, and no where more so than in the passages just quoted. It would be insulting the good sense of our readers to dwell upon the vagueness and 'unlawfulness' of his language; and we speak confidently when we affirm, that no man has so happily succeeded in utterly confounding all that accuracy of distinction and clearness of arrangement, which is so indispensably necessary in every attempt of this kind. 'The physical errors of systematizing' absolutely contain nothing that can entitle them to that name; nor do we find that the other denominations are employed upon any principle that can justify their use. If we except the last definition, there is strictly speaking no *specific difference* between the others; and we believe it would be easy to prove,

that there is nothing affirmed of any one of them, which is not true of all the rest. In fact, they are only very general propositions, which no one will be inclined to deny; but they are not sufficient to point out either the method of avoiding error, or of investigating truth; and we may safely say, that all the illustrations, which the author has given, may be easily referred to either or all of them, without doing violence to the principles of arrangement. They all resolve themselves into this simple statement, that hasty inferences are the sources of all our errors, whether in the pursuit of science or in the affairs of life; and the same is repeated, with little variation, in every definition. But the particular species of prejudices, which various habits or pursuits are apt to occasion in the minds of different individuals, are neither estimated nor described. This consideration, too, is the more provoking, as this very subject has been pretty fully illustrated by almost every writer on logic since the days of Lord Bacon. What that philosopher says, concerning the 'diseases and distempers of learning,' we would recommend to the perusal of our author, and he will find included under the *idola's* of the same writer, a classification, which might have afforded a model, at least, somewhat better than the one that he has adopted. It is clear, we think, that the author has confounded the general discussions which arise from this subject, and which are meant to include the theory of all sorts of inquiries, with those which illustrate the rules of reasoning, as more immediately applicable to the science of medicine. The latter might form a work of the highest utility; it is closely allied to the former; but we think it is pretty evident, that it is not likely to be well executed by Dr. Uwins.

The definitions already noticed, are resumed and explained by various examples; they are considered as principles which should guide our researches, and are afterwards referred to by the author, as affording him the means of proving the superiority of modern over ancient medicine. Here he exclaims against the 'presumptuousness of that spirit which opposes experience to reasoning, and prefers empiricism to system.' p. 29. This sentence we quote to support the criticism which we made on some of the statements delivered at the commencement of this chapter. If 'to experience, is to know; to know, is to infer; to infer, is to reason; and to reason, is to systematize;' what, we beg leave to ask, constitutes the difference between reasoning and experience? and, since 'experience and empiricism are themselves system,' where is the presumptuousness of preferring 'empiricism to system?' We are absolutely disgusted with the unpardonable inaccuracy of this writer; and we believe we have already said enough to give full force to the verdict which we delivered at the commencement of this article.

We know not to what sect the author belongs. He talks about empiricism and reasoning in a manner that is not very intelligible to us; and, from what we can perceive, or should imagine, not very well

understood by himself. We mean not to defend any sect, because we have always held *names* of *sects* to be *names* of *error*; but we firmly believe, that, under the sanction of the word empiricism, a great deal of unmeaning censure has been cast upon some of the most learned and enlightened of our profession. 'The *methodic* sect, on the contrary, whose influence has at all times been so extensive, we are persuaded have done more to corrupt all rational investigation, than any other class of men whatever. Every attempt that has been hitherto made, or at present can be made, to lay down a rule, 'a qua deviare piaculum est,' must be imperfect; and no man, who has distinguished himself as a skilful practitioner, ever followed such precepts. Genuine empiricism is no enemy to order and arrangement, which is the principal business of philosophy; but, in uniformly and wisely opposing the folly of those, 'who have sought for truth in their own little world, and not in the great and common world,' and who pretend to regulate the practice of physic by framing conjectures and concocting hypotheses in their closets, it on many occasions has fallen into blunders, not much less injurious to the advancement of knowledge, than those against which its opposition is so properly directed.

The rage for 'ingeniously accounting for phenomena' has been tolerably prevalent in our own time, and its bad effects might have been fully illustrated by our author in his next chapter, which he dedicates to an examination of the Brunonian theory. Except for some such purpose, we do not discover the propriety of bringing forward this doctrine. Its merits and demerits have been fully discussed; and the structure reared by that great luminary, which was to new-model the healing art, and to reduce its principles to the certainty of demonstration, has already fallen to pieces; and at this day scarcely two of his disciples are agreed, either respecting the nature or the appearance of the edifice. We are not disposed, nor do we think it at all necessary, to dwell upon this subject. We cannot help remarking, however, that the whole history, both of the origin and progress of this doctrine, affords a miserable picture of the state of medical science, even in this enlightened age. We mean not to detract from the genius and powers of the author of that system; but whoever attends to its numerous and most glaring imperfections, to the many controversies to which it has given birth, to the rancour with which they have been carried on, and to the nonsense and folly with which they have been disgraced, will certainly hesitate before he pronounces an unqualified encomium upon the state of physic, during the latter part of the eighteenth century; and we are afraid, that should any of our successors adopt the work of Dr. Uwins, as a criterion by which to infer the progress which has been made since that time, they will pass a sentence by no means favourable to the cause which he advocates.

The three following chapters treat of the 'progress of chemistry,

from the first dawn of the antiphlogistic doctrines,' of the 'general physiology of animal functions,' and of the application of the new chemistry to medicine. As these subjects are intimately connected together, we shall examine them in conjunction, and make some very general observations illustrative of the author's method of discussing them. The first of these chapters is composed of scraps of chemistry, detailed with a good deal of that sort of pomp and artifice, which we generally meet with in those self-conceited individuals, who seem anxious to excite the wonder and amazement of an ignorant crowd. It appears as if intended for an elementary introduction to the above-mentioned science. If so, the author must fail in his object, because it is by no means fitted to convey a knowledge of chemistry to the 'uninitiated beholder;' and no one, who has made any progress in that study, will thank him for a recapitulation of a few of the more simple and common-place phenomena. Far be it from us to undervalue the importance of any chemical fact; but we will boldly maintain, that the author has not fallen upon the proper method of communicating instruction to those who are employed in seeking for the principles of our art. The only sort of discussion, that could have appeared with propriety in a work of this nature, ought to have been of a more abstract and scientific cast; comprising enlarged views of the philosophy of chemistry, the rules which should direct its application to the theory of medicine, the extent to which it may be successfully pushed, and an examination of the causes which have led, either to a misunderstanding, or to an improper administration of its resources.

The author dispatches the subject of physiology much in the same manner that he treats of chemistry. Something more, we think, than a few detached observations on digestion, respiration, chylification, &c. was necessary in this place, No man, from what is here said, will obtain accurate notions of the science, nor will he learn in what manner he ought to proceed, in investigating the laws of life, or in classifying its functions. It is of no consequence, in pursuits of this kind, whether we refer the phenomena exhibited by living bodies, to an independent principle, an *anima*, or any such abstraction. We know not what life is, we know nothing of its essence; that name is applied merely to denote certain properties, which are either derived from, or attached to, a peculiar organization. It is to the study of this organization, therefore, that our attention should be directed, in order to discover the laws by which its phenomena are regulated. This species of investigation must be prosecuted in a manner different from that of any other. Chemistry and the other branches of physics admirably elucidate some of its subordinate parts; but they do so only in those cases, where organized bodies are subject to the same general laws, which govern all the other matter in the universe.

At times we are inclined to think, that the author is aware of these considerations; but it is plain, from the whole tenour of his

work, that he has not properly appreciated their influence. Chemistry, in one place he tells us, has thrown light on the constitution of the animal frame, by the explanation which it has afforded of the natural functions. p. 140. In another he insinuates, that all the inferences which are purely chemical, whether as applied to the explanation of functions, or the cure of diseases, are defective. On the whole, however, the observations made in this part, are more rational, and conceived and delivered more in the spirit of philosophy, than any thing else that we have met with in the work.

The seventh chapter concludes with remarks on what the author terms the 'digestive organs' theory,' and on 'purgative medicines.' —'The popular rage,' he thinks, 'for purgative courses should be strenuously opposed;' and he is apprehensive, 'that the character of some medical works, and the practice of some most respectable and able physicians of the present day, however to a certain extent in themselves proper, are rather calculated to encourage than to check that propensity in the public, particularly among persons in the higher classes of society, to suppose that their stomach and bowels may be cleared out and cleaned for fresh use, in the same manner as their servants wash their wine glasses.' p. 159. We really cannot laugh at this most facetious statement of the doctor's, and we care very little what opinion prevails among the *higher classes* in a case of this kind, because we shall never admit their conduct as a proper standard of the truth of any medical doctrine. Their *languors*, their *nervousness*, their *headaches*, and their *blue devils*, are the happy fruits of their dissipations and debaucheries, and they must new-model the whole tenour of their lives before they can escape from these evils. If we reduce this question within the proper limits of a medical investigation, we believe it to be exceedingly simple, and to involve fewer subjects of dissertation than almost any other connected with the practice of our art. Here, however, we must pay no regard to the dogmas of Brown, we must not be carried away by what the author so vehemently describes as the 'gastric and intestinal rage, both professional and public, of the day.' p. 154. Nor are we to confound the rules which apply to the administration of purgatives alone, with any other, which the discretion of the practitioner may suggest as necessary for the recovery of the patient. The author is not altogether free from any of these faults; and, by a particular sort of management, he has contrived to render 'the digestive organs' theory' answerable for many of the blunders, that have been committed by the ignorance or carelessness of the numerous pretenders with which our profession is infested.

The eighth chapter, which proposes to solve the following question, 'How far ought popular instruction in medicine to extend?' contains some useful observations on quackery, and the many mischiefs which arise from this wide-spreading evil. Here, however, as on former occasions, we have reason to regret the want both of system

and simplicity; and as to the sources of quackery, and its remedies, we are of opinion, that they are to be sought for in a situation somewhat different from what is generally imagined. *Physicians*, and *sorcerers*, and *witches*, at one period, were conceived to have many qualities in common. This belief, though now seldom formally announced, seems yet to be pretty generally acted upon in society; as it is still in the power of every mountebank and pretender to obtain a greater degree of confidence and credit than an enlightened practitioner. This is partly attributable to the credulity of the public, to the extreme uncertainty of our art, and to the consequent difficulty of estimating the talents and capacity evinced by different individuals in their treatment of maladies. These causes must always allow a certain degree of latitude for falsehood and imposture. But we are sorry to be obliged to remark, that professional men themselves are at the bottom of by much the greatest part of the mischief. Trace the sources of the popular slang, which is used to denote popular diseases and popular cures; examine the history of all the quack medicines with which we are deluged, the arguments by which they are recommended, and the excuses which are framed when they fail of success; and it will be found that they may all be recognised as the cast-off hypotheses, which at one time or another were generally admitted by the wisest of our profession, and are still in familiar use among an immense proportion of its present supporters. From this consideration we confidently predict, that the most choice and orthodox opinions which are now in vogue, will, in the course of years, afford the foundation on which future quacks are to raise themselves to wealth and fame, and supply tea-table talk to all the gossips of the next generation. How then does it become men to rail against every species of quackery but that of which they themselves are guilty? The quackery of the *regulars* is more detestable, and infinitely more pernicious, than that of the *irregulars;* and it is with the former, that the reformation must commence. When they shall have divested themselves of all artifice, affectation, and trick, and shall have assumed the dignity, the candour, and the simplicity, which befits the professors of an useful art, and the character of men whose minds ought to be dedicated to the cultivation of science, then we shall have nothing to dread from our present formidable rivals, with all their advertisements, and lies, and nonsense; and Noble Lords, and Right Reverend Bishops, will be a little more cautious in bearing testimony to a parcel of stories, of the evidence of which they must necessarily be very incompetent judges.

The 'Conclusion' is addressed partly to the general, partly to the professional reader. The author is anxious, that the former should be as well convinced as he is himself, of the absolute impossibility of effecting the unprofessional practice of physic; and 'that both by the number of discoveries, and our present mode of reasoning upon

these discoveries, modern justly demands a decided preference over ancient, medicine,' (p. 189). These general statements might perhaps be admitted; but, if what we have just said has any foundation, the inferences deducible from them must be made with extreme caution. The very existence of quackery, in its present extent, shews that the bulk of medical men either have not acquired, or are not entitled to that command over the sentiments of the public, by which alone they can triumph over their opponents; and we are not afraid to declare, that the outcry, which is raised against irregular practitioners, savours more of that which proceeds from the narrow-minded jealousy of a craft, than the efficient and well regulated attempts of an enlightened body of men, who are anxious to overthrow an evil, which on all hands is admitted to be enormous.

We deem it unnecessary to say any thing more concerning the work before us. We merely beg leave to confirm some of our former statements, by subjoining a few out of numberless expressions, which are equally inconsistent with sound sense and the idiom of our language: 'Perennity of animal temperature,' p. 124; '*dissimilitudinous simile*,' p. 182; '*spectral accusations* of a sickly youth,' p. 75; 'unassisted rationality,' p. 60; 'empirical unconformity,' p. 36; 'requisitions of the disorder,' p. 58; 'touchstone of further observance,' p. 37. To crown the whole, we add the following entire sentence; the latter part of which, as far as it is intelligible, some may perhaps conceive to form a tolerably good commentary on what we have just quoted.—'As an empirical inference, which truth does not own, is, if I may so express it, passively defective from defective information; so the other has more the character of suppositious or inventive error—it is in a degree the difference between folly and insanity; between the conceptions of an ideot and the conceptions of a maniac.'*

ART. XXIV. *Observations respecting the remarkable Effects of Sol-Lunar Influence in the Fevers of India; with the Scheme of an Astronomical Ephemeris for the Purposes of Medicine and Meteorology.* By Francis Balfour, M. D. From the *Asiatic Researches*, Vol. VIII.

IN Dr. Balfour our readers may probably recognise the author, who, many years ago, directed their attention to the fevers of Bengal, and to the striking coincidence which subsists between their appearance, and the periods of new and full moon. His observations

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* Modern Medicine, p. 35.

were confirmed by other physicians who have visited the torrid zone; of whom it may be sufficient to mention Drs. Lind, Jackson, Gillespie, and Pinckard; and they have now received additional weight from his own subsequent experience. It is certainly much to be regretted, that a writer, who has taken such pains to collect facts, should be so utterly incapable of displaying them to advantage, or arranging them with method; and that the theory, which he has founded upon them, should be couched in such cramp and obscure terms, that, although we have perused it repeatedly, with all the attention in our power, we find it difficult to describe its tendency, or to give any clear account of its nature. As the subject, however, is of great interest, and we may not have an opportunity of bringing it soon again under review, we will endeavour to make out a summary of the more important particulars to be gathered from this paper, divesting them as much as possible of the uncouth dress in which they have been laid before us.

The fevers of Bengal, according to Dr. B., have a marked tendency to appear and disappear in conjunction with those positions of the sun and moon, which regulate the rising and the falling of the tides; they are more frequent and violent during the spring tides; of more rare occurrence and milder character during the neap tides; a striking increase of their frequency is also observed during the equinoctial periods; and to prove that this observation is not confined to higher latitudes, Dr. B. cites the table, which was given by Dr. Currie, of the number of typhous fevers admitted into the Liverpool Dispensary, in the course of seventeen years; from which it appears, that the average increase of the number admitted, during the equinoctial season, was about one fourteenth above the common mean; while the decrease, in the intermediate periods, was about one fourteenth below the common mean. These doctrines do not rest altogether on our author's testimony; for, although he might have been deemed justified in establishing them on his own 'observation and reflection of thirty years,' he has collected a great body of evidence from different parts of India, in support of his opinions, the details of which he has not given, but which, from the respectability of the persons who are mentioned as furnishing it, we are not inclined to dispute. From this evidence we learn, that the same phenomena, the same coincidence between the appearance and disappearance of febrile disorders, and certain positions of the sun and moon, are observed in situations the most remote from the Indian coast,* as well as in those near to it;—thus completely disproving the opinion of Dr. Lind, that the increased frequency of fever in warm climates, at the time of the high tides, was owing to the miasmata engendered by the putrid slime which they deposit. The same remark was made, if we mistake not, by

* *e. g.* 660 miles from high water.

Dr. Pinckard; but his experience was not so extensive as Dr. Balfour's.

Satisfied as we ourselves are of the soundness of these observations, we should dismiss them without any comment, or attempt at illustration, were we not aware, that to many an apology may seem necessary for the doctrine which we are inclined to defend; and that there has long existed, among the physicians of this country, an obstinate incredulity with regard both to the facts themselves, and to the inferences which some men of genius have ventured to deduce from them. That incredulity we can neither vindicate nor explain; conceiving, as we do, that few observations in medicine have been established by such concurrent and incontrovertible testimony, as those now under consideration, or are better supported by the laws of the animal economy. It must, indeed, be confessed, that the use to which they have been applied has not always been very rational; that some absurd hypotheses have sprung from them; and that the true solution of the phenomena in question has been merely hinted at, but never fully and clearly developed. But the existence of these abuses and imperfections is no excuse for that scepticism which rejects facts, is deaf to reasoning, and blind to occurrences that are daily before our eyes. The reasons of our dissent from the general sentiment we will shortly state.

It will be readily admitted, that the circulation of the blood is considerably influenced by the gravitation of our bodies towards the centre of the earth; and that, as the latter power is liable to be affected by various circumstances, such as by the mass or velocity of the gravitating body, or by some counteracting force, its operation on the circulatory system must be different at different times. Its effect in producing anarsarca, or varix of the veins, of the lower extremities, is too well known to require any proof in this place; but there is another equally striking example of its influence, which has not been so generally attended to, viz. the differences that are observed in the pulse according to the different postures of the body. Thus, Dr. Bryan Robinson remarked a difference of 64—78 between the sitting and the erect posture; and in some experiments made by Mr. Allen of Edinburgh, on a very tall person, the pulse was found to be 60, and full, in the horizontal posture; 80, and small, on standing up; and 84-90, in the inverted posture. These facts being established, it requires no great stretch of imagination to conceive the manner in which the circulation must be affected by the changes in the gravitating power, when contending with opposite forces, as in the cases of solar and lunar attraction—for proof that it is so affected, we need only appeal to the diurnal febricula, to which every person, even in perfect health, is subject. But, as gravity operates chiefly on the venous system, in persons of sound health, and perhaps influences the arterial system only in a very slight degree, it is evident, that its effects in such persons can never

be very marked. When, on the other hand, the balance between the two systems has been destroyed by disease; when the irritability of the arteries is increased, and they are made to propel a larger quantity of blood, it is equally obvious, that its influence on the circulation must be considerably augmented. Reasoning from the power of gravitation, Dr. Darwin has endeavoured to shew, that those diseases which begin with torpor take place when the gravitation of our bodies to the earth is greatest, that is, about six hours after solar or lunar noon, or solar or lunar midnight; and, if we consider, that, at these periods, the obstacles to the return of the venous blood from the extremities to the heart, are greater than at other times, his theory must be allowed to possess at least a high degree of plausibility. The exacerbation of febrile disorders, in the intermediate periods, will be easily accounted for on similar principles.

These arguments (if, indeed, they shall be deemed worthy of the name) will, it is hoped, plead our excuse for the opinion which we have ventured to espouse, and rescue us from the imputation of a greater share of credulity than falls to the lot of the majority of our brethren. For facts illustrative of our positions, we must refer the reader to the works of those authors, who have treated of the subject, since the time of Mead.

ART. XXV. *Description and Treatment of Cutaneous Diseases. Order III. Rashes. Part II. on the Urticaria, Roseola, Purpura, and Erythema. And Order IV. Bullæ: on Erysipelas, Pemphigus, and Pompholyx.* By Robert Willan, M. D. F. A. S. &c. 4to. pp. 159. With nine coloured plates. Johnson.

IT cannot now be necessary to inform our readers, that this is the fourth fasciculus of a work, the publication of which commenced in the year 1798; that the first and second fasciculi comprehended each a complete Order, namely, the Papular and Scaly diseases of the skin; and that the third contained two *genera* only of the third Order, of *Exanthemata*, or Rashes. The part before us comprises the remaining *genera* of Order III., together with Order IV., and concludes the first volume of the work. Four Orders more, the Pustular, Vesicular, and Tubercular eruptions, and the Maculæ or Spots, comprehending twenty-two *genera*, remain to be treated of.

It is much to be regretted, that the completion of this undertaking of cutaneous diseases is likely to be protracted to so late a period, especially as the materials of its formation must have been, to a great extent, in the hands of the author, before any portion of it was submitted to the public. The principle of the arrangement, which is founded, like the modern classification of the objects of natural his-

tory, exclusively upon the external appearances of the eruptions, seems to be better calculated to facilitate the discrimination of the genera and species, than any other principle hitherto devised: and the sagacity and acute observation, which the author has displayed in its application, give an additional superiority to his system over those of his predecessors. Nevertheless it must be admitted, that great difficulties will still occur in establishing the diagnosis of the morbid phenomena in question, which are presented to our observation under an almost infinite variety of form, differing from each other frequently by the slightest shades that are distinguishable, often intermixed in the same subject, and sometimes even passing into each other. For we find that, in the course of an eruptive disease, an efflorescence may be converted into a papular, scaly, vesicular, or pustular affection; that vesicles and pustules become crusts and scabs; that pimples may become vesicles and pustules, and afterwards ulcers and scabs, and so on. Thus eruptions are seen to change their form and character, while retaining the same denomination; and sometimes they change both denomination and character as they go on. The *pompholyx*, for example, begins in the form of the larger sort of papulæ, which are speedily converted into bullæ, or blebs, and terminate in ulcer or excoriation; and *herpes* pursues a similar course, the elevations of the cuticle assuming the form of vesicles, instead of the large blebs. Again; the papular eruptions, as *prurigo*, are sometimes converted into pustules, and become infectious, constituting the *scabies*, or itch; which sometimes is extended to a large form of pustules, discharging matter, and which, therefore, becomes a sort of *impetigo*, or 'running tetter.'

The elements, however, of every species of eruption, are found in the pimples, scales, vesicles, pustules, &c. which constitute the basis of Dr. Willan's system; and these, if not previously well distinguished, are fixed in their signification by definition, in the outset of the work. The utility of a nomenclature, founded upon some simple data, like those just mentioned, is obvious, when we consider the confusion of language, which has prevailed in the writings of all physicians on the subject of cutaneous diseases, from Hippocrates downwards; for scarcely any form of eruption has been designated by the same term by two different writers; and almost every denomination of cutaneous change has been applied at different times to every individual disease. The learned Dr. Turner * has enumerated ten names, under which the Lepra of the Greeks has been mentioned by Hippocrates and Galen; among which are lichen, scabies, porrigo, psora, &c. And not one *genus*, we believe, is described by Dr. Willan, for which a numerous collection of synonyms has not been employed. This is remarkable with respect to scarlet fever,

* See his Treatise of Diseases incident to the skin, Part I. Chap. ii.

which desolated Europe for ages, under a thousand names: and the first *genus* of the Rashes, described in the part before us, viz. Urticaria, or nettle-rash, affords an example of the multiplicity of denominations which have been appropriated to one disorder. It is mentioned by different writers, Dr. Willan observes, 'under different generic titles, as Scarlatina, Essera, Erysipelas, Purpura, Erythema, and Uredo.' We proceed to give a brief analysis of this part of the work.

The nettle-rash 'is characterized by the round, oval, or longitudinal elevations of the cuticle, usually denominated wheals, which have a white top, often surrounded by diffuse redness.' Though in many cases accompanied with fever, it is not contagious. It appears chiefly under six varieties of form, to which Dr. W. has given the *trivial* names of *febrilis, evanida, perstans, conferta, subcutanea,* and *tuberosa.*

The *febrile* nettle-rash somewhat resembles the other eruptive fevers in its course. It is preceded for two days or more by headache, sickness, rigors, and other febrile symptoms, which generally subside on the appearance of the eruption: a most troublesome itching and tingling attend it, especially in the night. Its whole duration is about seven or eight days, and it is generally without danger. It occurs chiefly in summer, in persons of a plethoric or sanguine habit, especially in those who indulge themselves in eating and drinking too freely. Infants not a year old are often affected with it, during dentition; from the age of two to ten it is common; and, among adults, it affects women more than men.

Dr. W. here describes the cutaneous disorder, produced in particular constitutions by the use of certain articles of food, such as almonds, mushrooms, and various species of shell-fish, as it is very similar to the febrile Urticaria. It has, in a few instances, when occasioned by eating lobsters or muscles, proved fatal. In general the disorder does not exceed two days in duration, though it is sometimes extremely violent, and succeeds to the application of its cause almost instantaneously. Mess. de Beunie and du Rondeau, in the Memoirs of the Academy of Brussels, tomes i. and ii., affirm that vinegar, or the citric acid, used both internally and externally, gives speedy relief when the complaint arises from eating muscles.

An emetic of ipecacuanha (antimony being often detrimental) followed by a laxative of rhubarb and magnesia, light and cooling diet, abstinence from fermented liquors, and from sudorific medicines, constitute the treatment recommended by Dr. W. during the disease: and, when it is declining, cinchona and sulphuric acid are advantageous.

The Urticaria *evanida* is without fever, or any extensive efflorescence; but it continues with repeated eruptions for several months, or even for years. It appears and disappears many times in the

course of a day and night, according to the changes of the bodily temperature; and it may be produced on any part of the body, in a few seconds, by strong friction or scratching, but the wheals presently subside again. Heat, fatigue, watching, anxiety or agitation of mind, and a too stimulating diet, are the occasional causes. Warm bathing alleviates this, as well as the subsequent varieties of nettle-rash; the sulphuric and muriatic acids, with occasional laxatives, are also beneficial. But the disease has been often traced in its origin to some particular article of diet, by leaving off first one article and then another. Sea-bathing, when persevered in for several months, is generally advantageous. The same treatment is useful in the Urticaria *perstans*, in which the wheals are stationary.

In the U. *conferta*, the eruption is full, and diffused extensively; and the itching and tingling are almost incessant; it occurs chiefly in persons above forty years of age, who have a dry and swarthy skin, and seems to arise from too much exercise, exposure to heat, the use of rich or highly seasoned food, and intemperance in drinking spirituous liquors. A light cooling diet is the principal remedy recommended by Dr. Willan; together with which alterative medicines or tonics are sometimes useful; malt liquors, white wines, and spirits, must be abstained from.

The two other species, U. *subcutanea* and *tuberosa*, though generally tedious and obstinate, are also commonly partial: in the latter, the wheals appear chiefly on the limbs, and occur only in the night, leaving the patient weak, languid, and sore, in the morning. Irregularities of diet seem to excite these eruptions, and the repeated use of warm sea-water-baths affords relief.

The next genus of the Rashes, which Dr. Willan describes, is one to which he has assigned the name of ROSEOLA. Although a common cutaneous eruption, it is of little importance in itself, being chiefly symptomatic of different fevers; and demands our notice principally on account of its resemblance to the measles and scarlatina, for which practitioners not extremely attentive may, and certainly do, occasionally mistake it. Under this generic term the author means 'to express a rose-coloured efflorescence, variously figured, without wheals or papulæ, and not contagious.' p. 433. He has mentioned seven varieties of it. The two first, occurring in the summer and autumn, (R. *æstiva* and *autumnalis*) seem to arise from sudden alternations of heat and cold, and are sometimes connected with dysenteric complaints, and other disorders of the bowels; they continue several days, and are relieved by light diet and acids, especially the sulphuric. The other varieties occur in infants during dentition (R. *infantilis*); during the eruptive fever of the small-pox (R. *variolosa*) in about one case of fifteen of the inoculated disease, in which it is accounted a favourable prognostic; with the cow pock (R. *vaccina*) about the ninth or tenth day, extending from the vesicle over the body, and lasting not more than forty-eight hours; and

in fever accompanied with an eruption of miliary vesicles (R. *miliaris*). Such an efflorescence also takes place occasionally in typhus, or contagious malignant fever. Sometimes it precedes the formation of petechiæ; and, at other times, it is seen early in the disease, but remains only for a short period, without any material consequences.

The next genus, which, with Riverius and some other authors, Dr. W. denominates PURPURA, is 'an efflorescence consisting of small, distinct, purple specks and patches, attended with general debility, but not always with fever.' p. 453. These specks and patches are the 'petechiæ' and 'vibices' of medical writers; and the three principal varieties of the complaint, which Dr. W. names P. *simplex*, *hæmorrhagica*, and *urticans*, are modifications of the disorder more frequently termed '*petechiæ sine febre*,' since the publication of Dr. Graff's thesis at Göttingen in 1775, or '*hæmorrhœa petechialis*,' after that of Dr. Adair's, at Edinburgh, in 1789. The term Hæmorrhœa is the title that we should prefer, because it has not been assigned to any other disease; whereas the title Purpura has been applied to the red-gum, to scarlatina, measles, miliaria, lichen, and nettle-rash, by Etmüller, Morton, Juncker, Hoffman and others.

The two first varieties described by Dr. Willan seem to differ only in degree; the P. *simplex* being characterized by an appearance of petechiæ, with no other disorder of the constitution, than a paleness, languor, and some pains in the limbs; and the P. *hæmorrhagica*, being attended with anasarcous swelling, hæmorrhage, and vibices, with a greater degree of debility, faintness, and depression of spirits. The author never saw the disease terminate fatally: such a circumstance, however, is mentioned by respectable writers, and we are acquainted with two instances, in which death was occasioned by a sudden and profuse discharge of blood from the lungs. This complaint is referred by Dr. W. to a sedentary mode of life, poor diet, impure air, and anxiety of mind; and therefore exercise in the open air, a generous diet, with a free use of wine, Peruvian bark, the mineral acids, &c. are the remedies, which he proposes for its cure. He considers it, under all its forms, 'as pertaining to scurvy,' though not according in all respects with the nosological character of that disease.

This question is purely practical. The leading features of Purpura obviously resemble those of true scurvy, and therefore 'pertain to' that malady in their external character: nor can it be doubted, that the foregoing statement, as to the symptoms and remedies of Purpura, accords with general observation. Nevertheless, the complaint occurs occasionally in conjunction with other phenomena, not belonging to the scorbutic diathesis, and either resists the remedies above mentioned altogether, or requires those of a different, even opposite, nature for its cure. It was long ago

stated by Dr. Duncan,* that the disease was produced, where none of the supposed causes of debility existed; and the two fatal cases, to which we have alluded, occurred in young gentlemen, living in the country, and therefore enjoying good air, exercise, and a generous diet. In one of them, indeed, it had been preceded by a fever; but in the other, no assignable source of weakness could be even surmised, and no medicine seemed to alter the course of the symptoms. Again, Dr. Parry has lately published two cases of Purpura,† the one in a lady of full habit, the other in a military officer, in whom even a slight compression of the skin occasioned an ecchymosis; both of which cases were accompanied by a strong pulse, were immediately relieved, and speedily cured by *blood-letting*, and the blood drawn exhibited a contracted coagulum, and a thick buffy crust. In a practical view, therefore, we apprehend that Purpura is not to be always considered 'as pertaining to scurvy.'

The P. *urticans* begins with hard, reddish, and rounded elevations of the cuticle, which gradually dilate, but within twenty-four hours subside to the level of the surrounding cuticle, and are then succeeded by livid spots of the same extent. It generally appears in summer and autumn, continues from three to five weeks, and is cured by the same remedies as the former varieties.

The last genus of the Order of Rashes is the ERYTHEMA, which is defined 'a nearly continuous redness of some portion of the skin, attended with disorder of the constitution, but not contagious.' It is, in general, symptomatic, according to our author, but merits our attention, as it should be carefully distinguished from other eruptions, especially from the contagious Exanthemata. It is divided into six species.

The E. *fugax* occurs in irregular patches on the face, breast, &c. in bilious diarrhœa, in fevers, (betokening a tedious disease), and in some chronic complaints. The E. *læve* affects principally the lower extremities with a smooth shining surface, accompanied with œdema; and is cured by the horizontal position, together with corroborants and diuretics. The E. *marginatum* occurs in patches on the outside of the arms, legs, and thighs, producing no pain or irritation; but they are usually connected with some internal disease, and therefore unfavourable. The patches are bounded on one side by a hard, elevated, red border. The E. *papulatum* affects the upper parts of the body; the eruption is rough and papulated for two days, after which the skin continues red and furrowed for ten days or a fortnight. It is relieved by washing with tepid water, or thin gruel, by light coverings, a temperate regimen, and the mineral acids. Of the E. *tuberculatum* Dr. W. has seen but three cases,

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* Medical Cases and Observations, 1778.

† Edin. Med. and Surg. Journal, for Jan. 1809.

which all terminated fatally. This variety commences with fever, in irregular patches of red efflorescence, with round tumours slightly elevated: these subside in seven or eight days, but the patches of Erythema continue a week longer, and gradually disappear, when great debility, irritability, restlessness, and hectic fever, succeed. The sixth species, E. *nodosum*, has been observed only on the fore part of the legs, in females, in patches of a large and rounded form, which become hard and painful, but soften about the 10th day, and subside without ulceration. A purgative of calomel, followed by considerable doses of cinchona, alone, or combined with mineral acids, wine, &c. was effectual in every case.

The fourth order is characterized by an appearance of BULLÆ, *blebs*, or large vesications. As the author's arrangement originally stood, one order of '*vesicles*' included every elevation of the cuticle by the interposition of a transparent fluid; but he has since separated the Bullæ from the Vesiculæ, the last term being restricted to the small and regular vesications, which constitute the chicken-pox, shingles, &c. The Erysipelas is the principal genus of the Bullæ. With respect to the two other genera, Pemphigus, and Pompholyx, (the former a febrile, the latter a non-febrile disease), Dr. W. is doubtful whether they should be considered as one.

The ERYSIPELAS is defined 'a febrile disease, in which some part of the body is affected externally with heat, redness, swelling, and vesications. The tumour is soft, diffuse, and irregularly circumscribed; the redness disappears on pressure, and immediately returns when the pressure is removed.' This last observation is applicable also to Erythema, the diagnostics of which are thus stated in a note. 'Erythema is distinguished from Erysipelas, as it resembles an efflorescence, DEF. VI. and is not attended with swelling, vesication, or any regular fever.' Galen has described the different forms of Erysipelas pretty accurately, and Serapion and Avicenna have copied his observations, noticing the eruption of Bullæ, as resembling the vesications produced by fire. Dr. W. describes four varieties at considerable length.

The Erysipelas *phlegmonodes*, as its specific name imports, is attended with symptoms of a more sthenic character than the other varieties; it generally affects one side of the face, or one of the limbs, and its progress, which is somewhat different in these respective situations, is detailed minutely. Some variations are also noticed in its occurrence, according to the age and constitution of the patient. In the young and sanguine, the vesications sometimes appear on the evening of the 2d day, and the disease terminates on the 6th or 7th: but in old people, the swelling and redness seldom appear till the 4th day of the fever; the disorder is then protracted to the 10th or 12th, and desquamation is not finished before the 14th or 15th day. The swelling, in some cases, terminates in a partial suppuration. Dr. W. never saw it prove fatal.

The accession of the E. *œdematodes* is less distinct than that of the preceding species; the swelling extends very gradually, is of a pale red, or yellowish brown colour, with a smooth shining surface, and pits upon strong pressure: as the swelling advances, the constitution becomes more disordered, delirium and coma often come on, and, in many cases, the patient dies about the 8th day: sometimes he lingers to the 12th, 16th, or even 20th day, and then dies, or recovers his health and strength very slowly.

The E. *gangrenosum* begins sometimes like one, sometimes like the other, of the foregoing species. It generally affects the face, and is accompanied with a feeble pulse, brown tongue, and delirium, followed, in a few days, by coma, which remains through its course. The swelling is of a dark red, or livid hue, puffy or soft to the touch, and scattered phlyctænæ form upon it. Gangrenous spots, ulcerations, and intercurrent sinuses form in the cheeks and other parts. Hippocrates noticed the dangerous tendency of this species of Erysipelas. It does not, however, prove universally fatal, but it is always tedious and precarious.

The E. *erraticum* consists of red patches, of an irregular form, having all the characteristics of Erysipelas, which appear successively on different parts of the body, and are attended with a quick pulse, a white tongue, and great debility. It terminates for the most part favourably, in about a week. An Erysipelas affecting new born infants, and an appearance referable to Erysipelas, which has occasionally been observed soon after inoculation with variolous matter, are afterwards described, without being assigned to any of the preceding heads.

Dr. W. states, that the acrimonious lymph, contained in the vesications of a genuine Erysipelas, if inoculated, or casually applied to any slight wound, in a person otherwise healthy, produces febrile symptoms, with a red and painful but diffuse swelling, analogous to that of the disease from which the virus was taken. The Erysipelas, however, is not ranked among contagious diseases, more especially the phlegmonous form of it; though it does appear, occasionally, to be communicated from one person to another. The symptomatic Erysipelas, produced by a wound or a puncture, has sometimes become contagious in hospitals; but, in such instances, he considers it as being combined with a typhoid or malignant fever.

With respect to the treatment of Erysipelas, Dr. W. observes, that blood-letting, which was recommended by all the ancient writers, except Galen, is obviously improper in the three forms of Erysipelas, last described, and even in the E. *phlegmonodes* it is often unnecessary; and, if repeated, at least in London, it aggravates the symptoms, and protracts the disease. In a comatose state, leeches, or cupping glasses to the neck, are advisable. Dr. W. recommends blisters between the shoulders, when the face and scalp are affected; but cautions us against applying either blisters or leeches on or near

to the diseased surface. Saline medicines, antimonials, or the compound powder of ipecacuanha, may be used as diaphoretics. A gentle purgative every other day is requisite; for costiveness is an usual symptom of the *phlegmonous* Erysipelas.

'In the Erysipelas *œdematodes*,' he adds, 'we should employ blisters, diaphoretics, volatile alkali, and purgatives, during the first three or four days, and afterwards Peruvian bark, conjoined with diuretics. By these means the duration of the complaint may be considerably shortened.

'In the Erysipelas *gangrænosum*, a free use of the bark is necessary throughout. The mineral acids, and opium in moderate doses, are likewise of great utility. In other respects, the plan and regimen is [*are*] the same as in malignant fevers.

'The Erysipelas *erraticum* requires nearly the same treatment as hath already been directed for the E. œdematodes. When this disease affects infants, and shews a tendency to gangrene, the powder of Peruvian bark, or some preparation of it, should be diligently administered. Besides this remedy, the Physicians of the British Lying-in-hospital applied spirituous embrocations, particularly the camphorated spirit of wine, with signal success.

'External applications,' the author concludes, 'are seldom necessary in the other forms of Erysipelas. In order to allay the irritation produced by the acrid discharge from the broken vesications, we may, from time to time, advantageously foment or wash the parts affected, with milk, bran and water, thin gruel, or a decoction of elder flowers and poppy-heads.'

The PEMPHIGUS, which has been termed Febris bullosa, or vesicularis, by the German physicians, is 'an acute disease, characterized by an eruption of Phlyctænæ, or vesications with an inflamed base, appearing in succession on different parts of the surface of the body, and sometimes in the mouth.' It differs from Erysipelas chiefly, as there is no swelling or redness of the parts on which the vesications appear.

Dr. W. mentions three varieties, viz. P. *vulgáris*, *contagiosus*, and *infantilis*, of which he has seen the latter only, and states what has been said by respectable authors respecting the two former. As examples of the first variety, he describes the Febris Pemphygodes, *seu* Bullosa, of Seliger, from the Ephem. Ac. Nat. Cur. Dec. I. Ann. viii.;—and refers to the Pemphigus major of Sauvages, who first employed the term, and to the Febris Vesicularis catarrhalis of Delius, in the Amœnitates Medicæ, Dec. I. case 9. As to the second species, Dr. W. remarks, that the only circumstantial account of an epidemic and contagious disease, answering to the definition of Pemphigus, is given by a Swiss physician, Dr. Langhans, in the Acta Helvetica, tom. ii. p. 260; of which Dr. W. has printed a translation by Dr. Cooke. Symptomatic bullæ and phlyctænæ are mentioned as having occurred in the plague of 1666, by Dr. Hodges, and as appearing in other instances of pestilence, by Barbette and Etmüller. The P. *infantilis* is a fatal disease, attacking feeble infants, a few days after birth; the successive phlyctænæ terminate in painful ulcers; and the patients, under the exhaustion of pain, restlessness, and fever, are carried off.

Dr. W. concludes this topic with three questions, which imply his doubt of the existence of pemphigus, as a distinct idiopathic disease. He asks, 1. Whether the case quoted from Seliger is not a case of Erysipelas phlegmonodes, with some incidental variations? 2. Whether in the cases quoted from Sauvages, &c. the eruption was not symptomatic, and connected with typhous or pestilential fever? and, 3. Whether the disease described by Dr. Langhans was not rather endemic, than epidemic or contagious, and referable to some local cause, like the mal des ardens, &c. And he observes, 'that if the pemphigus had ever existed in Europe, according to the nosological definition of it,* as an idiopathic epidemical, and contagious disease, like the pestilence, small-pox, or scarlatina, it could not now have afforded us a subject of controversy.' p. 543.

The last *genus*, POMPHOLYX, which is termed Pemphigus sine pyrexiâ, by Sauvages, and Pemphigus apyretos, by Plenck, is defined by Dr. Willan, 'an eruption of bullæ, without any inflammation around them, and without fever.' This marked distinction from the Pemphigus of nosologists induced him to apply to it a new generic title. He describes three varieties of the disease, under the denominations of P. *benignus*, *diutinus*, and *solitarius*.

The Pompholyx *benignus* exhibits a succession of transparent bullæ, of about the size of a pea, or sometimes as large as a hazel nut, which break in three or four days, the parts readily healing, without pit or cicatrix. It affects boys occasionally in hot weather, and some young persons of an irritable constitution, after taking a few grains of mercury, or some acrid vegetable substances;—and likewise infants during dentition. No disorder of the constitution accompanies it.

The *P. diutinus* is a tedious and painful disease, chiefly affecting persons of a debilitated constitution, and particularly the aged. It commences with numerous bullæ, which are gradually multiplied, occupying every part of the surface, and sometimes even the tongue, fauces, and inside of the cheeks. When the vesications are rubbed off, the excoriated surface is extremely sore and inflamed, and does not readily heal. As ulcerations of this kind increase in number, a slight evening paroxysm of fever occurs, and the patient suffers much from pain, loss of sleep, and confinement. In some cases, the disorder has continued two, in others, three, four, or even five months, so that the whole number of bullæ amounted to several thousands; and after a cessation of some weeks, or months, the eruption frequently returned again, and proceeded in the same manner as before. The causes of this disorder are not clear or uniform:

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* PEMPHIGUS. Typhus contagiosa; primo, secundo, vel tertio morbi die, in variis partibus, Vesiculæ avellanæ magnitudine, per plures dies manentes, tandem ichorem tenuem fundentes. *Cullen.* *See also Linnæus*, Genera Morb.—*Genus* Morta.

fatigue, watching, intemperance in eating, and excess in drinking spirituous liquors, seem to have given rise to it in different instances. The cases of 'Pemphigus,' described by Mr. Upton, in the Memoirs of the Medical Society of London, vol. iii.; by Mr. Gaitskill, *ibid.* vol. iv.; by Dr. D. Stewart, Medical Commentaries, vol. vi.; and by Mr. Christie, Lond. Med. Journal, vol. x.; do not differ from the Pompholyx, as described by Dr. Willan.

According to Dr. W.'s experience, the warm-bath, used every second day, affords a more immediate alleviation of the symptoms, in old persons, and contributes more to remove the disease, than any other application. But it is not equally advantageous to young patients; in some instances, it has even aggravated the tingling in the skin, and appeared to increase the eruption. 'The disease is seldom very severe at an early period of life. In children, or in persons under forty years of age, I have seen it generally removed,' the author observes, 'within three weeks, by Peruvian bark combined with diuretics, especially with the powder or tincture of Digitalis.' p. 555.

In the Pompholyx *solitarius*, 'large vesications arise, on some part of the body, one after another, at nearly equal intervals of time. A disagreeable tingling is felt, for several hours, before the vesication arises, which is usually in the night. It enlarges rapidly, so as sometimes to contain, on the following day, a tea-cupful of lymph. Within forty-eight hours, the cuticle breaks, the lymph is discharged, and a superficial ulceration remains. Near this another vesication arises, in a day or two, and goes through the same process as the first. A third, fourth, fifth, and sixth vesication will sometimes appear, and proceed in like manner.' p. 556.

This form of Pompholyx is rare; Dr. W. has seen but three cases of it. It is attended with sickness and languor, but not with fever, and seems only to affect women. Peruvian bark was given with advantage; and poultices made with linseed powder were first applied to the sores, and afterwards light dressings.

It were superfluous to inform the readers of the former parts of this work, that the portion, now under our review, is distinguished by the same learning and research, and by the same perspicuity and classical correctness of style, which were eminently characteristic of the preceding orders. If the number of remedies has not been multiplied by our author, or the practice in these cutaneous affections not rendered more active, the defect, we fear, is to be imputed to the art, and not to the practitioner. We must, at all events, acknowledge the benefits deduced from accuracy of discrimination, both in respect to the forms of disease, and the means of cure; and we give due credit to the industry and talents, with which our nomenclature is simplified, amid a confusion of synonyms, and our practice cleared of a farrago of inert and useless, not to say of pernicious and misapplied expedients, under the name of remedies.

ART. XXVI. *Observations on the Inflammatory Affections of the Mucous Membrane of the Bronchiæ.* By Charles Badham, M.D. Member of Pembroke College, Oxford; Physician to his Royal Highness the Duke of Sussex; Senior Physician to the Westminster General Dispensary, &c. 12mo. pp. 133. London. Callow.

THE author of this work states, that he has been induced to present it to the public, from an idea that the disease of which he treats, has not obtained that degree of attention from the profession, which its importance demands. He thinks, that knowing the phenomena and treatment of pleurisy and peripneumony, we suppose ourselves sufficiently acquainted with the acute diseases of the organs of respiration; 'and yet,' he observes, 'actual practice supplies abundant evidence, that our knowledge of these diseases by no means exhausts the subject. That there is an acute inflammation of the air-passages, attended with fever, orthopnœa, and cough, and often, perhaps generally, having a fatal termination, is most certain.'—Admitting this, we do suppose that Dr. Badham is the only individual in the profession, throughout the United Kingdom, who could possibly presume, that being acquainted with the phenomena and treatment of pleurisy and peripneumony, 'we are in possession of all that is to be known of any importance, with regard to the acute diseases of the organs of respiration.' Such assertions must proceed from ignorance or presumption; and consequently demand our censure. We grant, that the disease in question has not hitherto been sufficiently characterized by practical writers, and that the present author has the merit of more particularly directing our attention to its peculiar symptoms; but we think that his talents might have been more usefully and agreeably employed, in collecting what actually is known upon the subject, than in proclaiming the ignorance of the profession, in a disease of acknowledged frequent occurrence. Dr. B., it is true, has quoted several authorities to prove that the ancients were not unacquainted with an obstructed state of the bronchial tubes; and he might have quoted modern authors, in proof of an acute affection of the bronchiæ, though no one before him deemed it of sufficient importance to form the subject of a distinct treatise. But the learned doctor objects to extend his inquiry into writings of a more recent date; 'because, while they claim no veneration from their age, [they] are replete with all the misconceptions of the infancy of science. On whatever subject we consult them, we learn only to how great an extent the exertions of the judgment, and even the operations of the senses, may be perverted, from an anxiety of conforming to the dogmas of antiquity.' p. 15. If Dr. B. had perused more of the modern writers upon medicine, we have no doubt, that he would have spared himself the shame of such general and

illiberal observations, while he would have more eminently qualified himself for the task which he has undertaken.

In the third chapter, affections of the bronchiæ are stated to be of three kinds, viz. highly inflammatory, asthenic, and chronic, according to the constitutional peculiarity of the patient, or the nature of the exciting cause. The term Bronchitis designates the genus, and the three principal species are distinguished by the epithets, acuta, asthenica, and chronica. Bronchitis *acuta* is the disease shortly to be described; Bronchitis *asthenica* is substituted for peripneumonia notha; and Bronchitis *chronica* comprehends chronic coughs, tussis cum dyspnœa, catarrhus pituitosus, and catarrhus senilis. The author first describes the bronchitis asthenica, or peripneumonia notha; the symptoms of which are well known in this country. He has communicated some interesting remarks upon the most frequent modes in which it terminates, and one of these is unquestionably of great practical importance, and is not generally attended to by practitioners; we shall therefore recommend it to their more particular notice. Peripneumonia notha 'sometimes becomes the origin of a spurious consumption; and it is no uncommon thing, to subdue the violence of its symptoms, and yet not to conquer the disease. The patient recovers, perhaps, a little strength, and leaves his bed, but his respiration is uneasy and oppressed. The cough and spitting, though mitigated in violence, continue to harass him, his pulse becomes more feeble and frequent, and a general debility takes place, attended with a decided loss of flesh. He becomes subject to irregular sweats, and in the course of a few months the emaciation often makes rapid advances. A person who sees this complaint after it is formed, and some time established, is ready to conclude, that he has to deal with Phthisis Pulmonalis; but if he be able to trace it from its origin, he will discern that it is an affection essentially different from consumption, however strong the resemblance in external character.' p. 44. From these alarming symptoms, the patient sometimes recovers, by the aid of medicines, and sometimes by the unassisted efforts of nature; and thus remedies have got into repute, for the cure of pulmonary consumption, when the lungs were perfectly sound.

In the fourth chapter we are presented with the history of bronchitis acuta, and some cases and examinations after death. This disease is occasioned by exposure to cold, and the same causes which produce other pulmonary affections.

'The patient is attacked with a sense of constriction, or other uneasy feeling at the chest: his breathing is hurried and painful, and becomes more and more laborious, till at length an orthopnœa is completely established, and the efforts of all the voluntary muscles which can be called into action, render the oppressed state of the lungs sufficiently evident. The countenance is full of anxiety, the nostrils are seen in perpetual motion, nor is it easy to conceive a more distressing spectacle, than a patient

under this attack exhibits. Cough soon succeeds; and though some expectoration attend, there is little or no relief derived from it. The state of the surface of the tongue, and of the urine, though liable to variety, all unequivocally indicate the phlogistic diathesis; and the moment the pulse is felt, the necessity of immediate venesection is obvious. Wheezing is not a constant, perhaps not a common symptom. If the disease remain for a few days unsubdued by proper treatment, or have been hitherto neglected, all the marks of excessive action disappear, the pulse is no longer full or hard, it has become excessively feeble, and of almost countless frequency; partial sweats break out at intervals; the patient spits up an immense quantity of yellow sputa, till from feebleness he can expectorate no longer, and then the secretion accumulates in the bronchiæ till he dies.' p. 53.

From dissection it appears, that the lungs are sound and free from adhesion; but the trachea and bronchiæ present evident marks of inflammation; and the latter are plugged up by a thick, tenacious, and sometimes purulent secretion.

Dr. Badham remarks, that there is a striking analogy between this disease, and cynanche trachealis. Unquestionably there is: in the one case the inflammation is confined to the trachea, in the other it extends to the extreme vessels of the bronchiæ; and when it reaches the substance of the lungs we have peripneumony.

We cannot compliment the author upon his attempt to establish the diagnosis between bronchitis acuta, and other acute pectoral diseases: this part of the work is very defective: every practitioner, who has had the least experience in the acute affections of the organs of respiration, is aware of the difficulty which sometimes arises in determining their precise seat and nature. Yet all that Dr. B. deems it necessary to observe respecting inflammation of the lungs is, that 'the disease (Bronchitis acuta) is not likely to be confounded with peripneumony.' Now, we not only conceive that the two diseases are likely to be confounded with each other, but we think that the doctor himself has mistaken one for the other. Thus, in the appendix, p. 126, a case is detailed as an example of Bronchitis acuta, the symptoms of which any one but Dr. B. would have stated to be those of peripneumony; we shall quote it, at length, that our readers may have an opportunity of judging for themselves.

'The author has the satisfaction of recording the successful treatment of a very severe case of the disease which has formed the subject of the foregoing pages, during the time in which they have been in the hands of the printer. On Saturday, April 9, a young woman of eighteen, who had been till then in perfect health, was attacked with some shortness of breath, and fever, after exposure to cold: by Monday the symptoms were greatly aggravated, but no assistance was desired till Thursday morning, when she was found sitting up in bed, the trunk of the body slightly inclined, and supported by pillows, in this, the only position in which she could breathe. The respiration was very frequent and anxious, the cough almost constant, but totally dry. A slight pain of the right side, and a violent sense of constriction across the thorax, were complained of. The constitutional symptoms left no doubt of the nature of the case; the skin was hot, the pulse sharp and very frequent, the tongue dry, the urine high coloured, and the

thirst urgent. From a consideration of the number of days which the disease had already attained, added to an experience of its tendency to a sudden conversion, as above noticed, the active treatment which these symptoms seemed to call for, was not used to that extent which would otherwise have appeared necessary. Six ounces of blood were immediately taken, a saline purgative and a blister were recommended, and the tincture of digitalis was ordered to be given every two hours without interruption, in the dose of twenty drops: this quantity was soon increased to thirty, and at the end of twenty-four hours she was again visited. The blood was very sizy, and the breathing rather relieved; but the relief was certainly inconsiderable. The pulse was not at all diminished in frequency or hardness, though so great a quantity of digitalis had been taken: it was directed, however, to be continued in the same dose at similar intervals, a saline mixture, with a considerable quantity of tartarized antimony, was prescribed, and the venesection was repeated to the same extent as at first. The respiration was more decidedly relieved by this treatment, and some hope began to arise that she might recover: still, however, the pulse retained exactly the same characters as at first. By this time, nearly ℥iss. of tincture of digitalis had been taken. The cough was undiminished in frequency, and not the least expectoration had taken place: but the skin had been brought into a state of relaxation, and was moist. The blood being equally sizy as at first, and the tightness across the chest still complained of, some ounces of blood were now taken by cupping, and a grain of calomel was directed to be given regularly every two hours. After eighteen grains had been used, the mouth was rather tender, and it was discontinued; by this time the formidable character of the disease had began [*begun*] to disappear: she was much better, and in three or four days afterwards was convalescent.'

Dr. B. is more successful in his diagnosis between bronchitis acuta and pleuritis; but, in his contempt for modern writers, he appears to have overlooked a species of that disease, described by Sauvages under the term of Pleuritis catarrhalis, and which so nearly resembles the acute affection of the bronchiæ, that we are inclined to believe, that this disease was intended to hold a place in the nosology of Sauvages, under the title just mentioned; at least the symptoms correspond as nearly as most nosological arrangements admit of, and are thus enumerated:—

'Est ea species quæ a coryza, raucedine, angina, ortum ducit, cum dolore catarrhali pectoris, qui dolor pressione mutatur, levi etiam tumore externo stipatur, et non semper puncto est affixus, sed huc et illuc extenditur. Febris est amphimerina quovis vespere exacerbans, tussis molesta, dyspnœa gravis, sæpe spuitio cruenta, et pleuropneumonia videtur esse ob additionem symptomatum peripneumoniæ hiemalis Boerhavii.'——&c. Sauvag. Nosolog. Class III. xiii. 9.

From the author's prognosis, all that we learn is, that if the attack is violent, the event is doubtful.

The sixth chapter unfolds the method of cure, which we have already presented to our readers, in the case that we quoted in a preceding part of this article. The author chiefly relies upon the steady employment of antimonial preparations; and of these, he prefers an aqueous solution of the tartarized antimony. From the

success of calomel in the cure of croup, and from its apparent good effects in the case of bronchitis already noticed, Dr. B. intends in future to give it a more ample trial. From the large and frequent doses of digitalis which he recommends, and from the little effect which seems to have followed its exhibition, we suspect that the tincture which he used was not good; and we believe that he is not the only physician who has found medicines prescribed at an hospital or a dispensary, attended with very different effects from those given in private practice.——The book terminates with a chapter on chronic coughs, in which we find nothing that was not known before.

Before we conclude, we cannot forbear hinting, that when new and valuable matter is communicated, although the style in which it is conveyed to the public is certainly not of the first importance, yet it is of some consequence, and we will hint to Dr. Badham, that the contents of his work are not sufficiently interesting to prevent his readers from feeling the harshness and affectation of its style, and the careless manner in which some parts of it are composed. In treating of the cure, the author mentions numerous remedies, and sometimes directs what doses may be given; but there is such a blending of Latin and English names, and so many abbreviations, such as 'Aq. Amm. Puræ,' &c. &c. that none but those who have been happily initiated in the mysteries of medical jargon in an apothecary's shop, can derive much instruction from this part of his labours. Lest, however, we should incur the suspicion of unjustly censuring him, we shall quote some examples of his varied powers of composition; premising, that we should not have taken so much pains with a writer of ordinary pretensions. In one place, he speaks of 'a slight mutation of weather;' in another, he uses the cacophonous phrase of 'rigorous regular exacerbation.' In p. 92, he observes, 'At the commencement of the disease, when the strength is entire, and the phlogistic symptoms clearly marked, *of course* the great remedy is blood-letting. This practice, however, though of *unequivocal* propriety, has not the same success to recommend it here as in other acute pulmonary complaints. The patient frequently dies, where the phlogistic symptoms have lasted long enough to have given a fair opportunity of adopting, and even of repeating, this practice. The extent to which it should be carried, must *of course* depend upon the circumstances of the individual case.' The next passage is still more affected: after informing us, what every one knows, that ammoniacum makes a smooth emulsion with water, and is disagreeable to the palate, the author continues, '*of superior efficacy is the asafœtida*, of which there is also an officinal emulsion.' The chapter upon the cure terminates with the following inflated sentence: 'if the patient exchanges the mephitic air of the metropolis, for the salubrious atmosphere of the country, *it is a commutation* by which he will more sensibly gain ground, after a certain period, than by any combination of medicines.'

From the preceding account of this little work, it will appear that we deem some part of its contents valuable, and entitled to the attention of our brethren; and if we have pointed out some defects, it has been from the desire of rendering Doctor Badham's future exertions more effectual. We object not to his making quotations from Xenophon and Thucydides; we merely recommend him to peruse more of the classical writers of our own country, before he deviates from that simplicity of style which is peculiarly requisite in the communication of medical facts. We will further do him justice, by asserting our disapprobation of a very partial and inadequate notice of his work in the London Medical Review.* The faults of the work, indeed, are sufficiently chastised; but the writer, in his frequent attempts at wit, abuse, and ridicule, has most unaccountably overlooked what is really of importance. It is true he has quoted some passages from cotemporary authors, to prove their acquaintance with 'acute inflammation of the lining membrane of the lungs;' but the conclusion which he draws is perfectly unwarrantable. 'Since he (Dr. Badham) has added nothing either to the history or the treatment of the disease, we shall not *plague* our readers or ourselves with any account of it. What Dr. Badham may choose to guess about it, can be of no consequence to any one but himself.' Now, after having shewn that our author has taken considerable pains to ascertain the seat of the disease by dissections, and to make us acquainted with the morbid changes which the parts have undergone previously to death, and has given a very comprehensive enumeration of the symptoms, we shall leave our readers to determine the motives which influenced the author of such remarks. The concluding observations are too personal and scurrilous not to defeat the writer's ends.

ART. XXVII. *A Practical Dictionary of Domestic Medicine, comprising the latest Discoveries relative to the Causes, Treatment, and Prevention of Diseases; with a popular Description of Anatomy, Casualties, Chemistry, Clothing, Dietetics, Pharmacy, Physiology, Surgery, Midwifery, Therapeutics, &c.* By Richard Reece, M. D. Member of the Royal College of Surgeons in London, &c. Royal 8vo. pp. about 640. Longman & Co.

IF there be any truth in the opinion which a French writer has ventured to advance, viz. that the multiplication of dictionaries in any nation is a sign of its increasing ignorance, the decline of learn-

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* Aug. 1808.

ing in this country must be at present very rapid. During the little year which our volume embraces, there have issued from the press not fewer than two new *Encyclopedias*, the *Pantologia*, or *General Dictionary of Arts, Sciences, and Words*, and one *Dictionary of Chemistry and Mineralogy;* not to speak of numberless collections and repositories of inferior note, all professing to excel every thing of the kind known before, to compress within a small bulk the learning of the age, and to teach the royal road to science to every description of readers. In some cases, however, it has happened, that these professions have been but imperfectly realized; the purchasers discovering, when too late, that they have been imposed upon by high sounding titles, and finding, instead of the accurate and useful information which they were led to expect, merely a mass of crude and undigested facts and opinions, selected without judgment, arranged without method, and frequently involving the grossest contradictions. From this censure we most readily except those abridgments of general science, which have been compiled by men, not more distinguished by the depth of their acquirements, than by the rare and happy talent of communicating their knowledge to that class, whose avocations will not permit them to devote any large portion of their time to study. These must be regarded as works of real and extensive utility, as contributing to the diffusion of learning, and to the general improvement of mankind. We only object to those inane publications, of which we have lately seen too many, prepared with no exertion of intellect, but by mere mechanical labour, consisting of nothing but shreds and patches gathered from different authors, and often possessing nothing new or important but the title; so that we may well apply to our own age and country, what the elder Pliny observed of the ancient Greeks, ' Inscriptionis apud Græcos mira felicitas:——At cum intraveris, Dii Deæque, quam nihil in medio invenies!'

Among this latter description of books, the ponderous volume now before us must be ranked. We opened it devoid of any prepossessions against Dr. Reece, expecting to find it contain a tolerable digest of all that had been written on the subject of popular medicine, by the authors who had preceded him. As we advanced in the perusal, feelings of indignation and disgust were alternately excited,—on discovering proofs of the most barefaced plagiarism in almost every page,—on observing the inconsistencies and contradictions of different parts of the work,—on noticing the inaccuracy and blunders of the compiler, and, above all, his insufferable arrogance and presumption. Never did a writer of such pretensions perform so little: never was a work, which, with a moderate degree of trouble, might have assumed a decent, if not an imposing appearance, so vilely, so miserably executed. Yet the person who calls himself Dr. Reece, has such unblushing confidence in his own powers, that he does not permit himself to entertain the smallest

doubt of his adequacy to the task which he had undertaken; nay, so sure is he of the excellence of his performance, and of the favourable reception it is to meet with, that, in a dedication to the Archbishop of Canterbury, he affirms, that it is 'calculated for the public good;' and, in a note at the end of the volume, he talks of its coming to a second edition as a matter of mere course! It is but justice, however, to mention, that he has not chosen to trust altogether to a fortuitous sale, but has taken considerable pains to collect subscribers for his 'Dictionary,' and to procure the patronage of a number of Dignitaries, or, as he terms them, '*Dignities* of the church,' whose names he has given, and whom we presume he intends to embody into a sort of Right Reverend College of Domestic Physicians, having for President, the Archbishop of Canterbury, and for Censors, those 'profound, sad, and discreete' personages, the Duke of Athol, and the Duchess of Leeds.

Before we enter upon the contents of this nauseating production, we must premise one or two observations on the subject of popular medicine, and on the tendency of books of a similar nature to that now under consideration. We have no objection to the people being instructed on the subject of their health; we even think it proper that there should be certain manuals prepared for their use, containing the most important rules of diet and regimen, and giving directions to them how to proceed in cases of emergency, particularly with regard to those diseases, the progress of which is so rapid, that, if left to themselves, they may terminate fatally, before medical assistance can be procured. But these publications should be managed in such a way as never to do any harm; they should give merely such information as is necessary for every man to know; they should teach the people how to preserve their health, but expose the folly, absurdity, and danger, of their attempting to become their own physicians;—and placing all the difficulties of the healing art in the strongest point of view, demonstrate the impossibility of acquiring even an imperfect knowledge of its rules, without long and laborious study, and a considerable degree of experience. It is hardly necessary, therefore, to observe, that we disapprove *in toto* of such books as 'The Ladies' Dispensatory,'—'Every Woman her own Doctress,'—'The Poor Man's Plaster-box,' &c. We are not, indeed, quite satisfied, that the two very popular works of Tissot and of Buchan are entirely free from the inconveniences on which we have just been animadverting; but certainly we did not expect to hear it objected as a fault of the 'Domestic Medicine,' that the practice which it inculcates 'has the negative merit of doing little harm, if it produces no good.' This, if true, would be, in our opinion, its greatest recommendation:—but such negative merit, it seems, will not suit Dr. Reece: he must have 'a decisive mode of treating diseases;' and, that a little good may come, he scruples not to risk a

great deal of evil, and to endanger the lives and safeties of his fellow creatures.

An analysis of the 'Practical Dictionary' is more than our readers can well expect from us, and more, perhaps, than they would relish, even if we had time and inclination to undertake it. Indeed, if it had not become, in some measure, necessary to take a general review of the work, in order to justify the censures which we have already passed upon it, we should content ourselves with mentioning, that except a bibliography of popular medicine, which is inserted by way of introduction, this large and closely-printed octavo volume does not contain one single article which we have read with any degree of pleasure, or which has the least pretensions to novelty. Very few articles are perfect, and the reader is continually teased and provoked by being referred from one place to another for the description of things, of which he can often find no account whatever in any part of the book. Thus, if he wish to know what *Fatuity* is, he is referred to *Idiotism*, but no such word occurs throughout all the rest of the volume; for an account of *Scrofula*, he is desired to look back under the head *King's Evil;* he does so, and discovers that Dr. R. has omitted to treat of any such disease; or if he be anxious to have some medical directions about *Breeches*, (for nothing is beneath our compiler's notice), he must pass on to *Dress*, but there he meets only with instructions about flannel shirts and worsted stockings. The search for *Debauch* is still more amusing; *e. g.* 'DEBAUCH, see *Intemperance:* INTEMPERANCE, see *Drunkenness:* DRUNKENNESS, see *Intoxication:* INTOXICATION, see *Accidents* or *Casualties.*'

These, however, are not the only instances of our dictionary maker's carelessness. Under the head *Cow-Pox*, he begins a paragraph as follows: 'In the SECOND *edition of this work* I expressed my doubts of the permanency of the security afforded by cow-pox inoculation.' What! refer to the *second* edition before the first was published? No, gentle reader, Dr. Reece did not mean to do this: it only happens that this article is, like most of the medical articles, copied, without scruple, *verbatim et literatim*, from a former publication of the same ingenious compiler's, yclept 'The Domestic Medical Guide,' which we shall have occasion to notice in another place. This Dr. R. will perhaps say he had a right to do: we do not think so; at least he ought to have warned his readers that this was the way in which he had made up his book. If further proof of his oversights be required, the following, we think, will suffice. Talking of *Carp*, Dr. R. says, 'from the spawn of this fish is made the *Caviare*, a dish much used by the Jews;' but he has scarcely turned another leaf before he fortunately discovers, that '*Caviare* is a species of food imported from Russia, and that it is made of the roes of *Sturgeons* formed into small cakes. It makes,' he

adds, 'among the Russians a great article of diet in the Lent season,' forgetting what he had been, but a moment before, saying about its use by the Jews.

The physiological parts of the book, though they have a more consistent appearance, are equally exceptionable in another point of view. They are chiefly borrowed from Haller, and are disfigured by the errors and absurd language of the age in which they were composed. Thus, there is a long disquisition under the head NERVES, in which it is endeavoured to be proved, 'that the nerves convey *a fluid*,' and an ingenious comparison is instituted between the *brain* and the *kidneys!* Again, when speaking of *sleep*, the writer, whoever he be, says, that 'sleep may be considered *as an interruption to the nervous fluid through the brain*, occasioned by its weakened action or collapse; and all the causes that induce sleep shews [*shew*] this to be the case.' But the following definition of *life* is truly original, and surpasses any thing of the kind which we recollect ever to have seen:

'LIFE *is that period of animal existence in which animation is conspicuous, and in which the mind and body display a conscious union.* The laws of the animal life have been treated by a number of writers. The facts, however, on the subject, which we can yet embrace, are not numerous. They will fall most properly to be detailed under the article *Vital Principle.*'

On perusing these sagacious remarks, our curiosity was raised to the highest pitch, and we turned over the pages, with eagerness, for the promised 'article *Vital Principle.*' Our readers will judge how great our disappointment must have been, when we found, that this was another of those delusive references, of which there exist so many in this book.

Dr. Reece is not content with displaying his talents for physiological research: he even encroaches on Mrs. Glass's province, and instructs his readers in the 'principles' of *boiling*, *frying*, *roasting*, and *stewing*; nay, so very condescending is he, that he gives them directions for preparing *flummery* and for mixing a *whipt syllabub*. So varied are this gentleman's powers! so useful and accommodating his erudition!——The work concludes very appropriately with an exhibition and recommendation of Dr. Reece's medicine chests, and a republication of his 'Family Dispensatory.'

After having shewn the slovenly and disgraceful manner in which the piece of patch-work before us has been put together, it may appear almost a work of supererogation, to point out the less important faults of style, and the errors of grammar and typography, with which the performance abounds. We will, however, subjoin one or two examples of the profound obscurity in which Dr. R. contrives to involve every thing to which he turns his attention. Thus, talking of *baldness*, he observes, 'whether it arises simply as the effect of acute disease, it is a frequent consequence of fever during the period of recovery, *more* than in the progress of *it*; the

restoration of health is attended with *its renewal,' i. e.* we presume, the renewal of baldness. Discoursing of *mind,* he says, 'MIND is that internal principle which regulates all our actions, and which, though *unconnected* with the corporeal part, is *materially influenced* by it, and *vice versa.*' We know not if Dr. Reece's book-making 'mind' be 'unconnected with his corporeal part;' but how one thing can have *no connection* with another, and yet be '*materially influenced by it,*' is more than our shallow intellects can comprehend, and what we must leave to his great metaphysical genius to explain.

We shall now take leave of this dictionary of dictionaries, and this prince of compilers, recommending to him, if he should be desirous of again appearing in print, to be a little less afraid of 'fatiguing *his* mind by study' and 'extreme thinking,' than he seems to have been, from different parts of his work; but, above all, to be cautious how he offends the public, by offering as a finished production, on a most important subject, a book displaying such heedless, not to say criminal negligence, and replete with errors of which the most ignorant of his shop-boys would have been ashamed.

The above review had been written some time, when our attention was attracted by two critiques of the same work, the one inserted in the Gentleman's Magazine for December 1808, the other in the Critical Review for January 1809; in both of which the most extravagant encomiums are lavished upon Dr. Reece and his Practical Dictionary. Judging from intrinsic evidence, we should ascribe these productions to some of Dr. R's. reverend friends, whom he has contrived to cajole into his service; for we cannot believe, that any member of the profession could be so ignorant, so stupid, as to describe, as original, a book which has been compiled in so barefaced a manner, or to give credit to the compiler for 'the sound sense, just reasoning, profound observations, and conclusive inferences,'* for which (if, indeed, such excellencies are to be found in the work) we are indebted chiefly to a pair of scissars. Of the candour, and of the regard for decency and truth, which these gentlemen have displayed in their laboured panegyrics, our readers may be able to form some conception, when told, that, in the Gentleman's Magazine, every person who shall venture to 'disapprove' of Dr. R's. performance, is threatened with the charge of envy; and that, in the Critical Review, the purchase of his dictionary is recommended, because 'it has the great advantage of being *more cheap, more commodious, and more portable,* than any similar work that details the modern practice of physic;' whereas it is, without exception, (and we challenge the Critical Reviewers to disprove it if they can), the most dear, the most incommo-

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* Gent. Magazine.

dious, and the most unportable book, that ever appeared on the subject of domestic medicine. Our opinion of the general merits of the publication in question was taken up on no slight grounds; and we must have something more than a few scraps from the Domestic Medical Guide, in the form of quotations from the Dictionary of Domestic Medicine, before we can praise it as a 'useful manual,' or 'safely recommend the purchase of the work to our clerical and other readers,' or before we can even assure them, that 'Dr. Reece is not a "*kill or cure*" physician.'* The impartial critics alluded to may rank us, if they please, among 'the envious and ignorant,' and refer to personal motives what we can most conscientiously declare has proceeded solely from our determination to expose delinquency wherever we may find it: but no such insinuations shall ever deter us from attempting to rescue, if possible, at least the literature of medicine from the stigma which attaches but too strongly to the general literature of the age,—'Literæ merum latrocinium sunt: quo quis impudentior, eo doctior habetur.'

ART. XXVIII. *Remarks on the present State of the Lunatic Asylums in Ireland, and on the Number and Condition of the Insane Paupers in that Kingdom; with an Appendix, containing a Number of Original Letters, and other Papers connected with the Subject.* By Andrew Halliday, M. D. 8vo. pp. 71. Murray.

IT appears from this pamphlet, that, though pauper and criminal lunatics exist in considerable numbers in the different provinces of Ireland, there is *not one* public asylum for their reception throughout the whole kingdom; the only public establishment for insane persons, viz. that endowed by Dean Swift, being completely shut to the poor. When lunatics of this class become dangerous, they are confined either in the county hospitals, as in Clare and Tipperary, or in the houses of industry, as in Dublin, Cork, Limerick, and Waterford, where they are too often treated in a manner shocking and disgraceful to humanity; but, as long as they are considered harmless, they are suffered to wander about the country, having their misery aggravated by every species of insult and indignity. 'I have, during a residence of six and twenty years in Ireland,' says Mr. Edgeworth in a letter to the author, 'seen a considerable number of mad people, of both sexes, in every stage of the disease, wandering from place to place, without any attempt being made to secure them. They are, when outrageous, objects of terror; and,

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* Critical Review.

when harmless, I am sorry to say, that they are objects of sport and derision, not only to children, but to people not less without sense than themselves.' Evils so flagrant call loudly for legislative relief, and require, we trust, only to be known, to receive due consideration; yet when Sir John Newport endeavoured, about four years ago, to obtain the sanction of the British Parliament for establishing four provincial asylums for lunatics in Ireland, the bill, which he had brought in for that purpose, was (with shame and sorrow do we tell it) *rejected* by the House of Commons. Dr. Halliday thinks the number above mentioned too small, and that nine, or perhaps eleven, asylums would not be more than sufficient for the whole insane poor of the different counties. He has probably not overrated the number; but it ought to be observed, that he has never been in Ireland, and the documents on which his estimate is built are very imperfect. It only remains for us to join with him in hoping, 'that some of the Irish representatives will come forward early in the present session of parliament with a bill similar to the one just passed for England and Wales.'

ART. XXIX. *An Exposition of the Practice of affusing Cold Water on the Surface of the Body, as a Remedy for the Cure of Fever: to which are added, Remarks on the Effects of Cold Drink, and of Gestation in the open air, in certain conditions of that Disease.* By Robert Jackson, M. D. 8vo. pp. 429. Murray.

ART. XXX. *An Outline of the History and Cure of Fever, endemic and contagious; more expressly the contagious Fevers of Jails, Ships, and Hospitals, the concentrated Endemic, vulgarly called the Yellow Fever of the West Indies. To which is added, an Explanation of the Principles of Military Discipline and Economy; with a Scheme of Medical Arrangement for the Army: and a Refutation of the Strictures made by the late Dr. Currie on that Part of the Work which relates to the Affusion of Cold Water on the Surface.* By Robert Jackson, M. D. Second Edition. 8vo. pp. 422. Murray.

DR. JACKSON is a persevering controversialist; and, in this instance, his determination to leave no argument unanswered, no stricture unreplied to, must be crowned with ample success: for, alas! his enlightened opponent had paid the debt of nature long before these 'refutations' appeared. Yet Dr. J. was not content with replying, in an appendix of 26 pages, attached to his reprinted volume, to the few incidental strictures of Dr. Currie, relative to a part of his practice; he writes another volume, larger than the ori-

ginal, in order to gratify his *cacoethes* of dispute, and to render the surety of his refutation 'doubly sure.' In our task of criticism, however, we shall confine ourselves to the 'Exposition;' since the only novelty (the appendix) in the reprinted work, is to be found *verbatim*, with the exception of a page or two, in the Exposition, occupying from p. 56 to p. 89, inclusive.

The external application of cold water, which was employed as a remedy for fever, by the ancient physicians, and particularly by the Romans, has been deprecated in all the modern schools of medicine, chiefly upon hypothetical principles, which seem to have originated in the experiments of Sanctorius, and the consequent importance assigned to the process of perspiration, among the functions of the animal economy. This *hydrophobia* may also have been partly occasioned by accidental injuries, which may have ensued from the practice of cold washing, employed under circumstances unfavourable to its success, and which could not be avoided, while the principles of its operation were not understood. Since the publication, however, of Dr. Currie's treatise on this subject, in 1798, in which the doubts and apprehensions, arising from prejudice and hypothesis, were shewn to be unfounded, and the indications of success were experimentally pointed out, the practice has been adopted by numerous physicians, all of whom bear testimony to its safety and efficacy, and therefore to the correctness of the principles, which Dr. Currie has laid down. We have had some experience of its advantages ourselves, and can affirm, that relief to the patient has been the invariable consequence of the practice. That it might not have been beneficial likewise under other circumstances, than those which Dr. Currie has stated, we do not pretend to assert; but, employed according to his directions, it has been safe, and always salutary, in a greater or less degree.

Besides, in Dr. Currie's view of the subject, there is an unity and a consistency, which seem to accord with our knowledge of the laws of the animal economy, not less than with the general simplicity of nature; and the perspicuity with which Dr. Currie has explained his principles, is equalled only by their practical facility.

Not so the Exposition of Dr. Jackson! He informs us, in his introduction, that the 'principle which forms the base by which his practical act is regulated, is not and cannot be made obvious to the multitude. The means of ascertaining its existence are not in fact easily attained even by the intelligent, and they are open only to men of professional science, who have intimate knowledge of the laws and movements of [*the*] animal economy in all its varieties.' Had our author gone one step farther, and stated the impossibility of rendering his doctrine intelligible to the imperfect understandings of the human race, we should have given him ample credit for his sincerity. We have perused and re-perused his 'Exposition,' with an anxious desire to obtain information respecting the means of ex-

tending the utility of the practice, which we estimate highly. But, *decies repetita*, it leaves our obtuse intellect still uninformed. Whether this obscurity arises from the crudity of the hypothesis, or from the lamentable perversion and inaccuracy of the language in which it is attempted to be expounded, we cannot decide: we believe that both these causes conspire to puzzle not only 'the multitude,' but 'the intelligent!'

Dr. Jackson again affirms, p. 55, that the fundamental condition, on which he rests, is not so obvious as that *assumed* by Dr. Currie; 'but it is a general condition,' he says, 'capable of improvement, almost of creation. It in fact consists, or *is supposed to consist*, in a condition necessary to animal life, viz. *susceptibility of impression!*'

This phrase, which is the foundation of all the theory and practice inculcated throughout the work, is intended, it must be presumed, as an expression of a general fact, like the term gravitation, life, &c.; it should, therefore, have been the first object of the author to analyse it for the edification of his readers. If observation had enabled him to combine a number of facts under one general term, he could surely have found no difficulty in resolving that term into its elements, and explaining its just import. But this he has never attempted. He leaves us to collect, if we can, from the following farrago of qualities in which he has dressed his new agent, some notion of its nature. This 'Susceptibility is *present*,' he tells us, in the commencement of Typhus;—it is 'in a manner *lost* or *absorbed* by the action of the disease,' in the ardent fever of the tropics, p. 143;—it 'is *veiled* by strong and forward action' in the same fever, p. 221;—it is '*engrossed* or *suspended*,' p. 282;—'*overturned*,' p. 133;—'*hidden* or *masked*,' p. 284;—'*suffocated* or *oppressed*,' p. 356;—or '*diverted* into an *insulated* channel,' p. 282, in various other conditions of fever. But from what symptoms he discovers these modifications of susceptibility, we are no where informed: unless, indeed, the following luminous statement can be said to contain such an explication:

'The more obvious of the conditions which mark *suspended* susceptibility, are sometimes connected with a certain form of constrictive action manifested in the system generally, sometimes with action of a tumultuous and precipitous course in the organs of circulation, and sometimes with local congestions in internal parts.'

This absurd phraseology, the result of a total misconception of the use and structure of language, is peculiarly Dr. Jackson's. It has pervaded and obscured all his writings: so that a reader of his former works will here recognise him at once, as Hudibras was discovered by the widow,

> 'Not by his individual whiskers,
> But by his dialect and discourse,
> That never spoke to man or beast
> In notions *vulgarly* exprest.'

It is an abuse of language, which, in a didactic work, cannot be too strongly deprecated. For nothing can more effectually defeat the purposes of instruction, than such a perpetual employment of indefinite terms; such a constant recurrence to one general phrase, to explain another equally general, instead of a recital of the specific phenomena, which are thus included under an hypothetical term. The words 'constrictive action' and 'tumultuous action,' are doubtless associated, though indistinctly, in Dr. Jackson's mind, with a certain congeries of phenomena; but he ought to be aware, that such association is purely arbitrary, the act of his individual intellect, and that these words cannot, therefore, bring to the conceptions of his readers the same congeries of facts, until he shall have enumerated them.

Yet Dr. Jackson, in one place, p. 94, petulantly deems Dr. Currie's animadversion on the obscurity of his language indecorous; and, in another, he says, 'if my ideas are peculiar, I may surely be indulged with some peculiarity of language in explaining them;' an observation, which, we conceive, ignorance alone of the nature of language could have suggested. We therefore refer him to Mr. Locke's Chapter on the '*Abuse of Words*,' sect. 22, where he will find his *peculiarity* amply exposed.*

But the abuse of language in which Dr. Jackson particularly delights, and which gives an additional obscurity to his writings, is the perpetual introduction of metaphor, and that of the most broken and incorrect forms. He talks of 'rapid figure of action,' for instance, p. 225, which we apprehend is figurative *nonsense*. But our extracts will afford abundant evidence of the extent to which this absurd and mistaken style is carried.

In the following quotation, the author presents us with the leading points in his doctrine of fever, and his indications of cure, in a

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* Speaking of those who thus abuse language, Mr. Locke says, 'they are apt to imagine so near and necessary a connexion between the *names* and the *signification* they use them in, that *they forwardly suppose one cannot but understand* what their meaning is; and therefore *one ought to acquiesce in the words* delivered, as if it were past doubt, that, in the use of those common received sounds, the speaker and hearer had necessarily the same precise *ideas*. Whence presuming, that when they have in discourse used any *term*, they have thereby, as it were, set before others the very *thing* they talk of: and so likewise taking the words of others, as naturally standing for just what they themselves have been accustomed to apply them to, they never trouble themselves to explain their own, or understand clearly others' meaning. From whence commonly proceeds noise and wrangling, *without improvement or information*; whilst men take words to be the constant regular marks of agreed notions, *which in truth are no more but the voluntary and unsteady signs of their own ideas*.' On the Human Understanding, chap. x.

string of those general phrases, which Locke calls '*learned gibberish,*' and which is truly worthy of the peripatetic schools.

'It is a matter of fact, placed within the view and comprehension of the common observer, that a due proportion of stimulating power, applied to a subject constituted with due vigour of life through the whole extent of the system, maintains the whole series of animal action in the just order of health; so, it follows as a natural consequence, by analogy of reasoning, and it is proved to be true in experience, that an increased proportion of the same cause accelerates the action in point of time, or augments it in measure of force; an excessive proportion accelerates it beyond the order or augments it beyond the degree which is consistent with health; while the admixture of matters of a foreign nature irritates it,—even to subversion, producing change in the tenor of movement, or suspension of just progress in the functions—in part or in the whole—and ultimately death.'

The sum of the information contained in this passage is, we apprehend, that 'the causes of health produce health, and the causes of disease occasion disease, which may end in death!' But, the author proceeds:

'The disease termed fever, the cure of which forms the subject of this Exposition, presents a change in the condition of organic action through the whole extent of the system,—differently proportioned, however, in each organ, according to a number of varying conditions. This action, whether accelerated or retarded in time, increased or diminished in force, is changed in manner,—perverted in *some shape or other* from its customary *form and tenor*, and *moulded into a new figure*, which has its own law of proceeding, and which produces its own effect, which is an effect subversive of health and sometimes of life.'

In other words, 'Fever is a general and peculiar affection of the system, which is inconsistent with health, and sometimes occasions death!' Our profound instructor then goes on to develope his views of the principle of cure, in the following terms:

'As it is evident to the simplest understanding, that organic action is not, and cannot be produced without an impulse of direct stimulation, or change of condition in subjects which amounts to stimulation; so, it is equally clear, and supported on similar grounds, that no action or circle of actions, when moved into this artificial train, and maintained in it in the manner implied, can be supposed to be checked or controlled in the vigour of its course, without an act of impression from a cause of a new and contrary nature to that which moved it originally, and which still continues to support it. And farther, as the power of the cause which moves the act must, in all cases, be proportionate to the needs of the occasion, it presents itself as an obvious inference from the supposition, that the leading indication for the cure of fever must necessarily consist in the adjustment and application of a remedy of a *stronger power of impression than that of the morbid cause;* and which, while stronger in power, is at the same time so constituted in its nature, that, while it acts by arresting the cause of the disturbed and perverted movement in which the disease consists, it may also, by a mode of impression connected with its properties, *move the parts* into such particular *form* of *contact* as to favour the commencement of actions analogous with those which obtain in health; at least, *it may be supposed* to produce, in consequence of the arrest alluded to, such a state of balance in the condi-

tions of the subject, that the powers, which stimulate action in its healthy forms, and which maintain it in vigour in ordinary circumstances, may be so presented and so received in the case in question, as to exert their force without impediment and without hindrance; consequently may be so directed, as to restore the customary train of action in all its extent, and to support it in all its parts with vigour. As it is evident, that, when the condition of the subject and the power of the agent are justly balanced, the movements are regular, and such as are deemed healthy; so, when these are changed, or not duly poised, irregularity arises and disease is the consequence. If this position be admitted, it follows in consequence, that the first step in instituting the plan of cure must be directed to restore *that equipoise, or just susceptibility of impression*, which appears to be overturned or absorbed in the existence of a foreign action.' p. 130, *et seq.*

This is the doctrine that Dr. Jackson sets up against the principles on which Dr. Currie recommends the external use of cold water in fevers! Here is much ground for comment, although, when stripped of its load of *verbiage*, this paragraph contains as little matter as the preceding ones. It informs us, that life is the result of stimulation; that disease is produced by a certain sort of stimulation, and that a new and opposite, and stronger stimulation is necessary to check disease; and, lastly, that a proper balance of the system with the stimulating power, being the essence of health, is necessarily the first object of the physician in the cure of fever.

Now this doctrine, that life is the result of stimulation, and health and disease the consequence of various relative conditions of the vital power, and the stimulating agent, is no more the invention of Dr. Jackson, than is the doctrine of gravitation. It is the system of John Brown, obscured by the phraseology of Dr. J., and rendered more indefinite by the omission of the two states of *sthenia* and *asthenia*, which constitute the principal and most philosophical portion of that specious theory; a theory, which, inapplicable as it was in the author's hands to the explanation of disease in general, becomes a mere rhapsody in the hands of Dr. Jackson: for, instead of an explanation, it is nothing else than a statement of the fact in a circumlocution of general terms. We have shewn that the former portions of this quotation are of this nature; and we have now to observe, that the conclusion contains a similar *truism*. 'The balance of the excitability and of the stimulus,' says our author, being interpreted, in the last period but one above quoted, 'constitutes health; the want of due poise, disease:—*ergo*,' he concludes, 'the first step towards a cure must be to restore that equipose;' *i. e.* to restore the source of health: a truth, which must be universally admitted, in all diseases, and in the administration of all remedies. But let us proceed to the author's practice.

Dr. Jackson admits, that, in the commencement of the typhus of this country, Dr. Currie's precept applies; that the *cold affusion* may be used without preparation; and that it often cuts short the fever. It is, he informs us, the 'most decisive controlling power

which the medical art possesses;' (p. 142, 143, and various other places) an assertion which his theory and practice in general pointedly contradict. For his practice principally differs from that of Dr. Currie, inasmuch as, on the one hand, he employs what he calls a *preparation*, prior to the use of cold water, in the incipient stage of the most ardent fevers of hot climates; and, on the other, by means of *preparatory* measures, he uses the cold affusion in the latter stages of all fevers. Now, we think it will be easy to shew, that what he calls the preparation, is, in fact, the cure, or at least the most efficient part of the plan of cure; and that the cold affusion, which, in truth, amounts in general only to a *sprinkling* in these cases, has little or nothing to do with the removal of the disease. So that his practice tends to prove, and he actually affirms, *totidem verbis*, that cold affusion, (this most active agent), is *not* adequate to the cure of the ardent endemic of the West Indies; (a statement, which is rendered very questionable, from the many contrary authorities which have been collected since the publication of Dr. Currie's book); and it also tends to prove, that in the latter stages of fever the cold is likewise a trivial expedient, to say the least of it.

The means of preparation for the cold affusion, in the commencement of the ardent, and toward the close of all fevers, are, according to the author, the same, and those of a Sangrado complexion. 'The violent and rapid action is arrested or moderated by *general bleeding*:—the stagnating and sluggish circulation is often animated by *the same means*, especially as assisted by the frictions of the surface and the fomentations of a warm bath;—the local forms are also moved by *bleeding*, &c. p. 280. Dr. Jackson thus, like Æsop's traveller, blows hot and cold with the same breath. Blood-letting, he says, 'quickens the circulation where it is sluggish or *suspended* by *oppression*; it moderates it where unduly excited,' p. 144. The blood-letting is ordered to be performed to an indefinite extent, not 'by ounces in a prescription book;' but until the adequate change is observed in the system: he asserts, however, that less than *thirty* ounces will seldom, in the onset of ardent fever, effect that change, which is thus described. 'It (V. S.) arrests the irregular course, restores the lost susceptibility of impression, *opens the sources of absorption*; it, in fact, produces a new state of balance, and generates a disposition in the habit to assume a new form of movement, when submitted to even slight causes of stimulation; it thus *cures the disease* of itself, or prepares the fit condition for the application of other means, particularly for the *affusion* of cold water on the surface.' *Ibid.* After the 'course of the disease is thus arrested or moderated,' a slight *aspersion* with cold water, we are then told, is more effectual than the affusion of gallons previous to such preparation. p. 224.

All this, we apprehend, is in direct contradiction to the foregoing

assertions of the paramount power of cold affusion, and evinces most abundantly the excessive confusion of Dr. Jackson's notions on the subject. We doubt not, that a slight *sprinkling* with cold water may, by the stimulus of sensation, contribute to reanimate the patient, fainting from loss of blood; but surely the bleeding cures the disease, as Dr. J's. words, however involved in hypothetical obscurity, imply. He might as well attribute the cure of pleurisy, after the inflammation has been subdued by venesection, to the mucilages and slight anodynes subsequently swallowed; and call the bleeding 'a preparation,' 'a restoration of *susceptibility*,' which gives an opportunity for the operation of the mighty 'controlling power' of gum arabic and paregoric elixir.

The same observation applies to the *preparation* for cold affusion, in other febrile complaints; *e. g.* in the remittent fevers, and dysentery. In the latter disease, it is said that cold affusion 'cannot perhaps be employed with safety without *previous preparation of condition*;—such, in fact, as *actually changes the entire face of the existing circumstances*.' p. 266. These preparatory, or, as they are commonly considered, *curative* measures, consist of bleeding in violent cases, warm bath, and brisk purges followed by anodynes. And 'when the dysenteric condition has been subverted by these and similar means,' says our author, (he might as well have said, 'when the dysentery is cured'), 'the application of very cold salt water to the abdomen, particularly to the lower parts of it, by means of cloths or sponges' (is this cold *affusion?*), or the immersion of the lower part of the trunk in a tub of water, is' (what does the reader imagine?) 'is singularly *refreshing*.' p. 267.

In the latter stages of fever, or the 'stagnant and gangrenous' states, when the functions of the circulation are obviously failing; or when, to use the elegant language of our author, 'in short, the action of life, in all its *phases*, is *ticklish* in the extreme,' the subtraction of blood is deemed 'the first important step in the preparatory process.' But other *preparatory* expedients are conjoined with V. S. The patient is immersed in a warm bath, his skin is rubbed with brushes, hot towels, and soap;—'with a strong pickle of salt, nitre, and vinegar, with lime or lemon juice, and with warm and stimulating oils,—with turpentine, spirits of wine and camphor, &c.;' while wines, especially brisk champaign, bottled porter, essence of spruce, brandy, alum, zinc, camphor, &c., are recommended to be given internally, 'to contribute aid.'—After these *preparations* have produced 'the fit condition,' then the "decisive controlling power' is called into play; the patient is to use gestation in the open air, and 'the *face* and *uncovered parts* of the body are to be *sprinkled* with cold salt water.' p. 210.

Our readers will already have observed the careless inaccuracy with which Dr. Jackson confounds the different modes of applying cold water; using almost indiscriminately the words, affusion, ablu-

tion, aspersion, &c. the effects of which on the constitution differ most materially. Indeed it is principally by this confusion of terms that he seems to be opposing Dr. Currie's principles, when in reality his practice is perfectly consistent with those principles. Dr. Currie had no experience of the effect of cold affusion, in the burning endemics of the tropics; he reasoned from analogy in respect to them, and his reasoning has been supported by the experience of some respectable correspondents. In common cases, where the strength is yet unimpaired, but the absence of morbid heat interdicts, in Dr. C's. opinion, the use of cold washing, Dr. Jackson institutes a process for artificially producing increased heat; with the general diffusion of which, he acknowledges his *susceptibility* to be much connected.

The effect of *affusion* appears to be twofold, viz. a powerful stimulus to sensation, or *shock*, as Dr. Currie calls it, conjoined with a copious abstraction of heat, which in the onset of fever often cuts short its progress at once. The effect of simple *ablution*, or sponging, is little else than a quiet abstraction of heat, which produces relief by removing this great source of irritation, and thus quieting the arterial action, producing perspiration, and sleep, and relieving headache, delirium, anxiety, and other consequences of inordinate circulation. It cannot cut short a fever, but it alleviates it greatly. But *aspersion* or *sprinkling* with cold water, possesses only a moderate stimulus on sensation. This may contribute to a temporary excitement of the circulating powers, when accidentally depressed, as in *syncope*, while the general strength remains; as will also the *smell* of hartshorn, or burnt feathers, or any other impression on sensation: but its effect in restoring a patient, exhausted by febrile disease, cannot be put in competition with any one of the internal cordials enumerated by Dr. Jackson.

The author's carelessness, indeed, not to say inconsistency, is obvious on many other points, and greatly diminishes our opinion of the accuracy of his observation, (on which he arrogates much to himself), as well as our faith in his alleged facts. He tells us, p. 84, that fever must be seen in the very commencement, if we expect to avoid a considerable fatality; and again, p. 200, that, after the third or fourth day at farthest, 'notwithstanding the copious and repeated affusions of cold water, it usually pursues its own course, and attains a regular termination after its own manner.' This every physician knows to be true with respect to fever. But Dr. J. says, p. 281, that, after preparation, in the later periods, the cold affusion will '*probably* not be so decisive as if it had been applied at the commencement of the disease;' and he has even asserted, in the same page, that he endeavours, 'at *whatever period* it may be presented to him, to form the case, that is, to create the condition; and, having created the condition, I apply the means *with confident expectation of success*.'

With respect to the effects of cold drink, whether in fever, or in

the hot and perspiring state occasioned by violent exercise, Dr. Jackson still calls in his '*susceptibility*' as the means of explanation. But susceptibility is here a totally different thing, or rather it is two or three different things. 'Susceptibility, which is a *feeling* of *want*,' says our author, 'consists in *irritation*,' p. 384. But in another place he informs us, that violent exertions under a hot sun, induce fatigue and inability, accompanied with increased *susceptibility* to impressions, *or preternatural avidity in the system of absorbents*.' 375. He professes himself, however, unable to determine the precise conditions of the body, after excessive exertions, in which cold drink is dangerous or fatal. And, we think, he states unfairly the positions of Dr. Currie, in order to appear to confute them. The three conditions stated by Dr. Currie, our readers will recollect, are (1) previous increased heat, from exercise carried to fatigue, succeeded by (2) a state of rest, and by (3) profuse perspiration. Dr. J. questions the existence of the *second* condition, because 'it is evident that agitation and tumult still continue; the circulation is rapid; the respiration hurried—even to panting;' &c. p. 382. Now, it is impossible to understand any thing by Dr. C's. word *rest*, but a cessation of the exertion, which had produced the heat and general excitement; and such we believe to be usually the fact. A resumption or continuance of the exertions, after the cold drink is swallowed, (where the exhaustion is not too great to admit of it), will, we are persuaded from experience, often counteract the pernicious effects of the cold, by keeping up the action which it has a tendency to suppress, or totally impede.

Dr. Jackson's objections to the doctrine of diminution of temperature, advanced by Dr. Currie, and his sneers at the recommendation of using a thermometer, (surely a prudent caution in the outset of the practice), must be deemed equally uncandid with the observations just alluded to. According to his representation, the reader would suppose that Dr. Currie considered the temperature alone, without any reference to the living powers of the body: whereas Dr. Currie expressly states the danger of the sudden abstraction of heat under the circumstances in question, as well as in the latter periods of fever, to arise from the exhaustion of the vital powers, by fatiguing exercise, or febrile disease, under which condition the reduction of heat conduces to a farther exhaustion; in a word, to the danger of extinguishing life. The existence of a high and steady animal temperature is justly considered by Dr. Currie as the index of the vigour with which the circulation and other functions of life are carried on, and *vice versa;* and, therefore, as an index also of the safety with which a portion of the heat may be abstracted. A state of profuse perspiration, which is the refrigeratory process of nature, implies the actual rapid decline of the high temperature, and a diminution of the heat-making process; and, therefore, whatever the degree of heat may be, Dr. C. then interdicts the application of

cold, either internally or externally, as likely to reduce the heat, and, with it, the vital powers, to a dangerous degree. It is unjust, therefore, in Dr. Jackson, to assert or insinuate, that Dr. Currie maintains the safety of applying cold, in all instances, where the heat, measured by the thermometer, is above the natural standard. He maintains this only where the heat is '*steadily*' above that standard, and where there is 'no general or profuse perspiration,' which marks that the system is rapidly parting with its heat.

The effects of gestation in the open air do not seem to be sufficiently ascertained, to enable the author to state any very accurate rules, as to its adoption in fevers. Dr. J. enumerates several examples of its asserted good effects on men, in different stages of fever, whether conveyed in open waggons, or in boats. We have, however, certainly witnessed very ill, we may affirm, fatal effects of the conveyance of patients, in the late periods of Typhus, in this metropolis, from their own habitations to an hospital. The practice, therefore, appears to us hazardous at such times; and there is not that general attention to accuracy, in the statements contained in this volume, which would lead us to anticipate the future adoption of such an expedient.

On the whole, we rose from the perusal of this volume with many unpleasant sensations: we were discomposed, in no small degree, by the apparent acrimony with which the author labours, page after page, throughout the work, to triumph over that enlightened and humane philosopher, whose tongue is now mute, even in self-defence, whose character, while he lived, was the object of general eulogium, and whose premature death has been the subject of universal regret, among the friends of literature and of science. We were the more disconcerted, because, with an arrogance as absurd as it is disgusting, our author has assumed a part of his triumph from the comparative *obscurity* of his own theory; mistaking this obscurity for depth of research, and misconstruing the perspicuity and popularity of his rival's system, into superficial knowledge and unphilosophical views; and also, because, as far as we are capable of comprehending the tendency of his practice, (theory apart), it seems to differ little essentially from that pursued by Dr. Currie. For it is evident, we think, notwithstanding his careless (we do not say wilful) inaccuracy in the use of the terms 'cold affusion,' that actual cold *affusion* was not generally employed by Dr. Jackson, either after bleeding in the commencement of the ardent fevers, or after the same operation in the last stages of other fevers: but that, on the contrary, he only used *aspersion*, or *sprinkling*, under those circumstances; and that cold *affusion*, strictly so denominated, was solely applied at the early periods of Typhus, *i. e.* in the same instances in which it was recommended by Dr. Currie, sometimes preceded by the warm bath, and sometimes not, according to the author's precepts, when accurately put in practice.

It is always painful to discover, that deception, whether intended or not, has been practised upon us by one, to whom we are looking for instruction. We observed, therefore, with pain, that points of important discrimination in practice, which are strenuously and repeatedly insisted upon by our author, were, in truth, omitted by him in his practical character. Dr. J. has again and again stated the necessity of directing blood-letting, 'not by ounces in a prescription book,' but by watching the effects of the operation on the patient, and his disease: we were, therefore, surprised to learn from the Appendix to Mr. Keate's Observations on the 5th Report of the Commissioners of Military Enquiry,* that this operation was left entirely to the judgment of the surgeons' mates, however incapable they might be of judging on the subject. And we were sorry likewise to learn, that our discriminating author appeared to prescribe the immediate succession of *hot* and *cold* bath, with as little actual attention to the heat of skin: his ordinary prescription for fever-patients being simply this; 'V S. W and C B.,' followed by an emetic and purgative. These initials signify venesection, warm and cold bath.†

With respect to the information to be derived from this volume, a reader in any degree conversant with the subject will find that it lies within a very small compass. He will observe the same opinions and circumstances repeated again and again, with little variety; he will perceive that the theoretical part of the work, where it is intelligible, consists of simple and obvious truths, enveloped in a tissue of figurative and high-sounding language, presenting him only with words, where he expected new principles; and he will discover that the author is more anxious to gain an apparent victory over the theory of Dr. Currie, than to be correct in the use of his terms, accurate in the statement of his facts, or consistent in his assertions and opinions. In a word, he will, after the most attentive perusal, be disposed to conclude, that however assuming of superiority in this discussion the author may be, his pretensions to philosophical views, to logical and metaphysical precision in reasoning, and to just induction from a well-digested experience, are not substantiated in any part of this exposition.

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* See our Review of the Pamphlets connected with this subject.

† Such being the practice, and such the inattention with which it was conducted, we were not surprised to find that the mortality in the hospitals under Dr. J's. care had been so unusually great, that the Army Medical Board were requested to send a deputation of physicians to inquire into its cause. See Mr. Keate's Appendix, above quoted. No. 8.

ART. XXXI. *Observations on the Rise and Progress of the Medical Art in the British Empire, containing Remarks on Medical Literature, and a View of a Bibliographia Medicinæ Britannicæ.* By W. Royston, Esq. Apothecary Extraordinary to H. R. H. the Duke of Clarence. 8vo. pp. 48. Callow.

THIS is merely the prospectus of a work on medical bibliography, on which Mr. Royston has been for some time engaged, and which is certainly much wanted in this country, we having been hitherto obliged to German industry, for the only good histories of our indigenous literature which we possess. Mr. R. proposes to arrange his catalogue of books according to the different branches of the art of which they treat, and to preface it 'by an historical memoir, giving a detail of the progress of the medical art in Britain, from the earliest period to the present time,' in which he designs 'to trace to its source every discovery, to elucidate every theory, and to investigate every interesting controversy: to point out hypothetical aberrations of opinion, and duly estimate the sound reason and rational principles that have restored the misguided intellect to the genuine paths of science.' p. 43-4. To the general arrangement of his plan we have no objection; though we doubt whether it can be conveniently carried into execution in the earlier periods of medical history, when the elementary and collateral sciences were in their infancy, and when the art itself was not divided as it now is. But it does not appear quite evident to us, that the Apothecary Extraordinary to the Duke of Clarence, is precisely the man best qualified to compose a philosophical dissertation on the progress of medicine; at least it is not a happy omen when he stumbles on the very threshold, we mean in the first sentence of the Prospectus. 'Letters,' says Mr. R., 'furnish the unsullied memorials of truth, and impart to successive generations the perfect records of knowledge.' We shrewdly suspect, that if he had thought a little more about what he was writing, he would have found, that the reverse of the proposition approached nearer to the truth; that the 'memorials of truth' were generally much *sullied*, and the 'records of knowledge' almost always *imperfect*.

Till, therefore, Mr. Royston's metaphysical ideas are digested, and his style improved, we would advise him to confine himself to the more humble attempt of compiling a good *catalogue raisonné* of British medical books, by which he will unquestionably render an essential service to the literature of his country, and for which he shall have our hearty thanks. We would, however, just whisper in his ear, that if he is really, as he professes to be, 'anxious' to elicit hints, and obtain assistance from others, it is not very handsome in him to charge *two shillings* for a sparsely printed *prospectus* of forty-eight pages.

ART. XXXII. *The Fifth Report of the Commissioners of Military Enquiry appointed by Act of* 45 *Geo. III. Cap.* 47.—*Army Medical Department.*—Ordered to be printed 26th January, 1808.

ART. XXXIII. *A Letter to the Commissioners of Military Enquiry: containing Animadversions on some Parts of their Fifth Report; and an Examination of the Principles on which the Medical Department of Armies ought to be formed.* By Edward Nathaniel Bancroft, M. D. Fellow of the Royal College of Physicians, Physician to His Majesty's Forces, and to St. George's Hospital. 8vo. pp. 104. Cadell and Davies.

ART. XXXIV. *A Letter to the Commissioners of Military Enquiry; in Reply to some Animadversions of Dr. E. N. Bancroft, on their Fifth Report.* By James M'Grigor, M. D., F. R. S. E. &c. Deputy Inspector of Army Hospitals. 8vo. pp. 57. Murray.

ART. XXXV. *A Letter to the Commissioners of Military Enquiry; Explaining the true Constitution of a Medical Staff, the best Form of Economy for Hospitals, &c. with a Refutation of Errors and Misrepresentations contained in a Letter by Dr. Bancroft, Army Physician, dated April* 28, 1808. By Robert Jackson, M. D. 8vo. pp. 88. Murray.

ART. XXXVI. *Observations on the Fifth Report of the Commissioners of Military Enquiry, and more particularly on those Parts of it which relate to the Surgeon General.* By Thomas Keate, Esq. F. R. S. Surgeon General to His Majesty's Forces, Surgeon to the Queen, to their Royal Highnesses the Prince of Wales and the Duke of York, to Chelsea Hospital, and to St. George's Hospital. 4to. Hatchard, Piccadilly.

ART. XXXVII. *An Exposure and Refutation of various Misrepresentations published in their separate Letters to the Commissioners of Military Enquiry; interspersed with Facts and Observations concerning Military Hospitals and Medical Arrangements for Armies.* By E. N. Bancroft, M. D. &c. &c. 8vo. pp. 135. Cadell and Davies.

ART. XXXVIII. *A Letter to the Commissioners of Military Enquiry, containing a Refutation of some Statements made by Mr. Keate, Surgeon General to the Forces, respecting the Medical Department of the Army.* By Robert Jackson, M. D. 8vo. pp. 63. Murray.

ART. XXXIX. *A Letter to Mr. Keate, Surgeon General to the Forces.* By Robert Jackson, M. D. 8vo. pp. 91. Murray.

ART. XL. *Proceedings and Report of a Special Medical Board, appointed by His Royal Highness the Commander in Chief, and the Secretary at War, to Examine the State of the Hospital at the Military Depot in the Isle of Wight, &c. &c. &c.* pp. 83. Seeley, Fleet Street.

A BOARD of Commissioners was instituted some time ago to inquire into abuses which were alleged to exist in the army. We know nothing of these gentlemen in office, and their inquiries and proceedings would have passed entirely unnoticed by us; but in their fifth Report they touched upon the medical department of the army, and evinced their utter incapacity for such an undertaking. Who, indeed, could be so absurd as to expect, that men wholly unacquainted with medical science, should at once be capable of appreciating the merits of different descriptions of practitioners, of deciding upon the best modes of treatment, and of balancing the advantages and disadvantages of general and regimental hospitals,—questions the most momentous that can be offered for discussion, and which demand talents, attainments, and experience, rarely combined even in the first medical characters? Yet we find that the commissioners, who were appointed to collect and lay before Parliament information upon these important matters, were not only very ignorant of every subject connected with their research, but, in conducting it, became blindly prejudiced. It might have been supposed, that men who had been deemed worthy of this appointment, would have been aware of the importance of their trust, the serious consequences of their inquiry, and the effect which their Report must have upon the character of several gentlemen high in office, and distinguished in reputation; it might have been supposed, that, when they felt their total incompetency to perform their duty, they would have sought for information where it could have been obtained; and by a fair and candid examination of every description of medical men, whether in civil life, or attached to the army, have enabled themselves to present the honourable members of the House of Commons with an impartial statement of facts. They did indeed take *some* pains to inform themselves upon the subject, which they state was '*new to every member of the commission.*' They began by perusing some publications of Dr. Jackson, a writer whom Dr. Bancroft describes as being 'noted for a strong propensity to innovating projects and speculations, as well as for eccentric and peculiar opinions; and who, from the course and events of his life, must have adopted lasting prejudices on several of the topics to which that inquiry was directed.' We know this statement to be correct, and were fully prepared for the strange Report of the commissioners, when Dr. Bancroft informed us, that every part of it, which required his animadversion, was produced by the assertions or suggestions of Dr. Jackson.

Yet when adverting to the general hospital system, these gentle-

men have the assurance to declare, that, 'in pursuing this part of their inquiry, they have collected information from gentlemen of great experience in every branch of army medical practice, and have endeavoured, by an examination and comparison of the accounts of general and regimental hospitals, and of the medical system observed in the navy, ordnance, and East India Company's services, to judge of the merits of the army medical system.' This assertion proves, that the commissioners well knew what they ought to have done; but, so far from acting with common honesty and discretion, they avoided examining those medical officers, who, from rank in the profession, and superior opportunity, were most conversant with the subject; they did not even condescend to interrogate one army-physician; nor did they put a single question to Mr. Keate, who had, as he states, with one exception, 'the control of all the general hospitals, which have been established during the last fourteen years, whether at home or abroad;' whilst, continues Mr. Keate, 'they have, with singular partiality, sought *viva voce* evidence from *two gentlemen only*, who certainly were among the least qualified to give proper information that they could have selected; since one of them, Dr. M'Grigor, has never, in the whole course of his service, been called upon (to the best of my knowledge,) to do one single day's duty in general hospitals; and the other, Dr. Borland, has done but little duty in them,' &c. &c. But these two gentlemen had, it seems, the merit of supporting the assertions and opinions of Dr. Jackson; and these the commissioners had previously imbibed, and were determined to retain.

Having thus shewn the manner in which they proceeded to acquit themselves in their office, we shall not dwell upon the minute defects which they ascertained to exist, nor repeat the charges of misconduct and neglect of duty, which they insinuated against some of the chief officers in the medical department of the army; for all of these have been refuted, in the fullest manner, by Mr. Keate, in his Observations on the fifth Report. We shall, therefore, proceed directly to consider the main points of discussion. Dr. Jackson, it seems, strongly urged, that regimental surgeons, who had risen to that eminence from the rank of surgeons' mates, are best qualified to perform the duties of army-physicians; but if it be still deemed necessary to employ regularly educated physicians, they should first engage in the lowest situation in the army, that is, of a mate, and rise by regular gradation. One of the questions addressed by the commissioners to Sir Lucas Pepys, the Physician General, was, 'Would not the gentlemen, who have acted as surgeons to regiments, and have afterwards served in army hospitals, be equally, or rather more, fit to be appointed physicians to the army, than the persons (viz. regularly educated physicians) you have usually recommended?' The answer was brief and decisive: "I think not, because their education does not lead them to a knowledge of principles." No

wonder that the import of this sententious reply, on which a volume might be written, escaped the penetration of these notable commissioners, who preferred the boasting assertions and empty speculative opinions of Dr. Jackson, to the known integrity, sound understanding, and tried ability of the few army-physicians at present on the establishment. They, accordingly, in despite of public opinion, and the sanction of experience, have, in the plenitude of their ignorance, 'ventured to propose a complete abolition of all distinction between physic and surgery, so far, at least, as regards the British army, and to recommend, with a view to their *entire exclusion, that no more army-physicians should be appointed.*' Dr. Bancroft's Letter to the Commissioners, p. 10.

With these commissioners and Dr. Jackson we must be decidedly at issue upon this subject; and we deeply regret, that at this period of time, and in this country, there should be any necessity for discussing such a monstrous proposition. The distinction between the practice of physic and of surgery has arisen, not from fashion or caprice, but from necessity; it has received the sanction of time, and the approbation of every man capable of reasoning; and the two arts are now pursued by the same individual, only in small communities, or in young and barbarous countries: to enter, then, into the defence of such a division, must be an insult on the understanding of our readers. Yet, Dr. Jackson, in his first Letter to the Commissioners of Military Enquiry, p. 30, is not ashamed to assert, that 'the division of the art into these separate provinces, has served most eminently to increase the importance and multiply the profits of physicians. I cannot discover that it has, in fact, or that it could, in simple reason, be supposed to improve the science; on the contrary, it appears to me to be one great cause which mars its progress.' We are ready to conclude, that Dr. Jackson must have been previously aware of the dense capacity of those whom he addressed in this letter, or he could not have attempted to confirm such assertions by the flimsy arguments which follow: indeed, from the mode in which these ingenious investigators proceeded, he certainly had great reason to suppose, that he could offer nothing on his side of the question too contradictory or absurd for them to admit and act upon. He does not argue very closely; but, as far as we can comprehend him, we infer, that, in his opinion, a physician is unfit to attend a sick man, because he does not compound his own prescription, or see it compounded, neither does he administer it with his own hand, or see it administered by the servant; the medicine often does not arrive at the patient's house till '*the condition of things is changed,*' when the favourable moment is past; and, moreover, the division of the healing art into different branches, is only practised 'in rich countries, among rich people, and in great and opulent cities,' &c. With these and other futile reasons, Dr. Jackson has convinced the commissioners, that

regimental surgeons are preferable to physicians; 'for, to administer, as well as to prescribe, is a part of the regimental surgeon's duty. In reply, we shall merely observe, that if physicians did personally superintend the preparation and administration of their medicines, they might, indeed, come down to the level of Dr. Jackson and the commissioners; but they would also speedily lose those superior qualifications, which can alone enable them to perform the important duties of the physician. We address ourselves to medical men, and have no occasion to dilate on such a subject.

The last argument which is advanced *against* the division of the healing art into separate branches, is, in our opinion, one of the strongest which can be adduced in its favour; viz. that it only obtains in 'rich countries, among rich people, and in great and opulent cities:' for, in such places, and amongst such people only, can a man be sufficiently remunerated for devoting his time and his talents to the investigation and pursuit of a particular branch of his profession. What man, gifted with merely common sense, would not instantly admit, that he who had studied generally every part of the medical and chirurgical art, (which is the case with all regular physicians) and afterwards applied himself to the practice of one particular department only, must be infinitely more skilful in the exercise of that branch, than he whose time and attention are distracted by the multiplicity of pursuits which general practice necessarily occasions. But if, in civil life, when medical cases occur, we deem it essential to avail ourselves of the talents and extensive acquirements of a physician, whose attention has been chiefly directed to such cases, whilst his education must have been liberal; or, in surgical cases, to have recourse to an experienced operator, whose very skill, in his particular art, must disqualify him for general practice; why, in the name of reason and of humanity, are the brave men, who expose themselves to every variety of hardship and disease, in defence of their country, to be left to the care of surgeons or surgeons' mates only? It is ridiculous to tell us, that soldiers are subject to peculiar complaints, and that no man who has not gone through the routine of subordinate appointments, that is, who has not once been a surgeon's mate, can be qualified to treat them. This language may impose upon the credulity and the ignorance of the commissioners; but we defy their oracle, Dr. Jackson, to prove, that the diseases of military men differ from those of other people, unless in being sometimes more severe, and demanding greater promptitude and decision in practice: in fact, in one of his pamphlets he admits this to be the case. Let us, then, for a moment, consider the pretensions of the gentlemen whom he and the commissioners have recommended to supersede the army-physicians. The difficulty of procuring a sufficient number of mates for the army, in time of war, is admitted on all hands; the demand is greater than the supply; and young men are permitted to enter, who at another

period would be deemed ineligible. They can read and write; and some of them, especially those from the north, have a smattering of Latin; in the shop where they served their apprenticeship, they have acquired little more than the art of rolling a pill, writing a label, or holding the porringer while their master lets blood. Thus gifted, they take a three or a six months' run of some London hospital, or Scotch university; and, before they begin to understand the lectures which they hear, actually obtain the appointment of mate in the army or navy; for, in this dearth of mates, the examination which they undergo is very trifling. Now, when we consider, that the subject is almost new to them, that they have to attend lectures on anatomy, physiology, and chemistry, on the materia medica, and the practice of medicine, of surgery, and of midwifery; besides dissecting, and daily running through the wards of the hospital, scarcely getting a sight of the favourite surgeon, much less of the patient, except in the operating theatre, where, indeed, among 150 spectators, they may, with the aid of a good opera-glass, acquire about as accurate a notion of what is performing, as a man in the one shilling gallery may suppose he perceives all the fine touches and variations of countenance in a great actor; the proposal of exalting these half-educated youths to the rank of physicians, is manifestly absurd. Besides, it appears, that nine-tenths of the cases in the army requiring medical aid, are strictly medical cases, in which a surgeon has no business to interfere; but these young men never see the physician's practice in the hospitals; they merely attend to the surgical cases, by far the greater proportion of which are *sore* legs.

In offering these strictures, we do not wish to insinuate, that there are no exceptions: we know of many; but we confidently affirm, that more than three-fourths of the striplings who enter as surgeons' mates in the army, are of this description. The mortality amongst medical men, on foreign service, is much greater than is commonly supposed; hence vacancies for surgeons to regiments frequently occur; and it is well known, that young men, from favour or seniority, are often preferred to a rank which they are totally inadequate to fill with honour or propriety. Such are the persons recommended to supersede the respectable body of army physicians, who have so unjustly incurred the censure of Dr. Jackson. But mark his cunning: addressing his worthy friends the commissioners, he observes,

'I do not deny that Oxford and Cambridge are excellent seminaries for classical learning, mathematics, and logic; and that men have been enrolled at Oxford and Cambridge, who have proved themselves to be great physicians: but Greek and Latin, mathematics and logic, may be learned at other places besides Oxford and Cambridge; and unless the Physician General can satisfy the public, that when a student is enrolled in the lists of the university, he is presented with a key or pick-lock for all science, I can see no reason why a young man, who knows Greek and Latin, mathematics

and logic, as well as a Cambridge student, for instance, as well as Dr. Bancroft himself, and who attends the same courses of lecture, and walks the same hospitals, and at the same time, in London, or at Edinburgh, as Dr. B. does, should be qualified for no higher degree than to compose drugs or administer glysters; while the Dr., because he had a knowledge of *principles*; that is, had kept his terms at Cambridge, was at once appointed physician to the king's troops, and held to be duly qualified to cure the most formidable diseases in the most unhealthy climates of the earth, by prescription, or without previous experience,' &c. &c.

The above extract is a specimen of Dr. Jackson's best style, and mode of reasoning. We readily grant to him, that such men as he has described are equally qualified, with the graduates of any university, for the highest medical appointments in the army, and that it would be degrading for them to accept inferior situations; but men with such attainments do not offer themselves as mates, rarely as surgeons. We also assent to Dr. Jackson's description of the qualifications of a candidate for medical appointment; but he well knows, that men so accomplished and so gifted never present themselves for subordinate appointments; and if such are found in the army, it is amongst the physicians only, whom the expectation of superior rank and emolument have induced to enter. Dr. Bancroft has also shewn, that Dr. Jackson was convinced of the propriety of a distinction between physic and surgery, even when he was labouring to prove the contrary. What are we to think of a writer, who, notwithstanding his unjust abuse of this description of officers, had, in a work published in 1805, recommended for the service of the hospitals, that *physicians*, with peculiar and superior qualifications, shall be selected, &c. 'because,' says he, 'the consideration and cure of *internal* diseases, which fall within the physician's province, are the *more important*, and, for the most part, the more numerous class of maladies, which occur in military hospitals?'—'Hence,' he adds, 'the physician's task is prominent, &c. But surgeons of hospitals (he tells us) are most suitably taken from the inferior class of surgeons of battalions;' because their '*main qualification* consists in matured judgment and *manual dexterity*.' We should not dwell so long upon this question, if we did not deem it very important; and if there did not appear to be a decided intention to deprive the army physicians of that rank which they formerly enjoyed, and to which their services and information entitle them; and, consequently, in no very distant period to exclude them altogether. We feel it our duty to oppose this injustice, not from any motives of interest or jealousy, but from the deepest conviction, that by blending together the offices of the physician and the surgeon, the dignity of the profession is degraded, and that the practice of physic, whether in military or in civil life, will fall into the hands of men insufficiently qualified, and the public ultimately suffer. As it is, the difficulty of obtaining the appointment of physician in the army is so great, and the remuneration so inade-

quate, that graduates are induced to enter as surgeons; and these are the men who would obtain Dr. Jackson's support: but we have already attempted to prove, that, in sinking the title, they would soon relinquish the superior advantages of the physician; and, as the facility of becoming regimental surgeons augments, the merits of the candidates will diminish. To be physician in the army, it is requisite to be a member of the London College of Physicians, which, notwithstanding Dr. Jackson's impotent abuse, and false assertions, is a proof, that the candidate has had a regular education, and is properly qualified to treat all medical cases; whereas a diploma from the college of surgeons, merely attests an acquaintance with anatomy and surgery: but it is demonstrated, that by far the majority of cases in the army are strictly medical, and ought not to come under the surgeon's care. Yet the commissioners have expressed it as their opinion, that physicians are incompetent to superintend the medical concerns of the army service; 'because, being taken from *civil* life, *they could not but have wanted* that knowledge which was requisite to the conduct of military hospitals, and *the management of sick soldiers*.' (p. 86 of Rep.) The offices here alluded to, are those of inspectors and deputy inspectors of hospitals: now, it appears from Dr. Bancroft's statement, that the defects and insufficiencies which called forth this especial observation of the reporters, were not discovered 'until *after* Mr. Knight's appointment (as Inspector of Regimental Hospitals) in Dec. 1801; and that, from the limited sphere of his military services and experience, he could not be supposed qualified to appreciate the merits either of army physicians or of general hospitals.' From that period, Mr. Knight had the sole nomination of inspectors and deputy inspectors; and he, contrary to all former usage, nominated surgeons only. This, indeed, is an abuse which requires speedy redress; and if the commissioners, for reasons best known to themselves, put no questions to Mr. Knight on the subject, in the name of our much injured brethren, we call upon him to state the motives which influenced him to exclude them from offices which they filled even to *the satisfaction of the commissioners*. Mr. Keate, the surgeon general, we presume, will be deemed as competent a judge in these matters as Mr. Knight; and he observes,

'If my opinion on this subject were asked, I should, without hesitation, object to the exclusion of physicians, whether from the army in general, or from those duties which, until 1800, were so ably performed by them, in conjunction with the surgeons, before deputy inspectors were exclusively appointed to inspect the regimental hospitals in the several districts of Great Britain, &c.; services which well entitle them to the encomium bestowed on them by the commissioners in page 86 of their Report, viz.' "We have every reason to believe them to be eminently deserving of commendation in all these respects, viz. knowledge, assiduity, and experience."

The following judicious remarks of Dr. Bancroft, inform us what are the qualifications and duties most desirable and important in the chief medical officer of an army:—

'To assist in maintaining that army in the most efficient state, by preventing, as well as by curing, sickness among the soldiers, is one of the most important of these duties, and one for which *physicians* are qualified *above all other men*, by the means which education has afforded them, of taking comprehensive views of the diseases most frequently prevalent in different climates and situations, of the causes of such diseases, and of the best modes of obviating them, and of counteracting and mitigating their operation when present.' *1st Lett. to the Commissioners*, p. 82.

Now, from what we have observed upon the education of the army-surgeons, it must appear evident to every unprejudiced person, that we ought not, in justice, to look to them for assistance in medical cases of novel occurrence, or of extreme exigence. Their immediate province is surgery; to be efficient in which, demands a minute acquaintance with anatomy; and, whilst they are acquiring that, every other species of knowledge is held of inferior consideration; but, in proportion as the mind is accustomed to dwell upon one particular subject, it loses the power of generalizing: the work of a surgeon is chiefly manual, his judgment is merely exercised in determining when an operation should be performed; the rest depends upon his knowledge of anatomy and dexterity in cutting. This does not enable him to discriminate diseases, anticipate their changes, or combat unusual appearances; it does not teach him the powers and varieties of remedies; on the contrary, it often induces him to despise medicine, as wholly insignificant, and to regard the sentient human body, as an organized machine, the defects of which he may repair, as an artist would restore the interrupted action of a piece of mechanism.

It is rather singular, that the commissioners, in their search for abuses, should have overlooked that of elevating surgeons to be inspectors of hospitals: we have alluded to it before, and shall now adduce some instances of its bad consequences. We conceive, with Dr. Bancroft, that, under the inspection of a regular physician, such practice as the following would not have been permitted; viz. '500 drops of laudanum ordered to be given every hour,' and 'glysters with 500 drops of laudanum to be given also every hour,' to the same patient: the laudanum was about one third weaker than what is commonly used. In another case, '20 grains of calomel with six grains of opium,' were given every hour; and in another, 'two ounces of mercurial ointment (with which *four ounces of calomel* were afterwards mixed) were ordered to be rubbed in at one time.

'Of the surgical inspectors, some, *presuming on their authority, have dictated even to army physicians, the medicines they should prescribe for their patients:* others (ignorant of the first principles of physic) have issued public orders, that the patient in the general hospitals of a particular deno-

mination, for instance, labouring under a certain acute disorder, should *all* undergo one and the same mode of treatment directed by themselves, without regard to age, differences of symptoms, stages of the disease, &c.; and when obliged to confess the failure of the first mode, have proceeded to order another indiscriminate species of treatment, and then a third,' &c. &c.

Dr. Maclaurin, army physician, being officially called upon to state what he knew respecting Dr. Jackson's practice, amongst other particulars, deposed,

'I did see "men ill of fevers bled freely," much too freely I thought then, and still think, (it was a pretty regular routine, even in fevers of debility). I saw too, "men apparently not ill of fevers, bled freely," bled to fainting, lying upon the surgery floor, in a manner equally indecent and alarming; this not an accidental circumstance, but a most frequent occurrence. I did see Dr. Jackson's prescriptions sent to the surgery; in them bleedings directed, without the quantity of blood to be taken specified, but, of course, left to the discretion of any hospital mate, who happened to be in readiness to operate, and who had not then, nor could have previously had, an opportunity of ascertaining with accuracy the disease.'

This realizes what we once believed was unjustifiable satire: if we mistake not, the author of the 'Devil upon two sticks' makes one of his doctors say, '*What did you do yesterday?*'—'*Why, sir, we bled the north ward, and purged the south:*'—'*Well, then, to-day, you may bleed the south ward, and purge the north.*'—For some other curious specimens of practice, we must refer to the Appendix, No. 8, of Mr. Keate's Observations. Dr. Bancroft states, p. 91 of his Letter, that 'one of the finest armies which England ever sent forth, was at a very critical period exposed to extreme hazard, from a most fatal disease, through the imprudent orders of the Goliah of the surgical inspectors, who was ignorant of the nature of the distemper; and the troops were saved, in all human probability, from destruction, by the firmness of an army physician, who saw the danger, and persevered in pointing it out, until measures of safety were taken.'—This forcibly recalled to our recollection a little anecdote, which may not have been inapplicable on the above occasion. 'At the siege of ——, the commissary of the hospital of the sick and wounded was amazed at the ignorance of a surgeon, who was employed about a wounded soldier, and told him of his want of skill in very plain terms. The surgeon replied, with great naiveté,'—"Mr. Commissary, wounds, indeed, are not, I confess, my *fort;* but if you will employ me as a mid-wife, you will have good reason to rejoice in your appointment."*

In page 23 of their Report, the commissioners candidly avow the sources whence they derived their information, and we again lament that they should have been so grievously misled. 'It appears,' they observe, 'to be Dr. Jackson's opinion, as stated in his publications,

* Fureteriana.

(to which we the more willingly allude, because we have had frequent opportunities of ascertaining the correctness of the facts stated in them, and also because many of the improvements which have been lately made in the army medical system, appear to us to have been suggested by him), that two thirds of the medical staff abroad, during the last war, were useless: " wherever the hospital staff acted," he says, " the regimental had little to do: and where the last did its duty, the hospital staff had nothing to do."'

This was a fine subject for men, gaping for abuses, and finding none, to get hold of; and, accordingly, they have complimented its author in appropriate terms: but, worthy men! it would have been well had they inquired into the truth of the assertion, before they so exposed themselves. Fortunately for the army, fortunately for the country, Mr. Keate has refuted it, in a manner which ought to cover Dr. Jackson and the commissioners with shame and confusion. He states, p. 24, that,

' In forming the hospital staff for the army under Sir Ralph Abercrombie, as well as that intended for St. Domingo, a very large addition of medical officers, beyond what had been usual in similar cases, was made in consequence of the great mortality, which had for some time prevailed in the West Indies, and of the advice and earnest desire of Messrs. Young and Weir, the two inspectors general, as well as of eminent military and medical officers who had served abroad. Dr. Jackson was fully acquainted with the numbers and ranks of the medical officers upon each staff; a great part of those destined for St. Domingo sailed under his direction with the army from Cork; but though he wrote many letters to me from that city, respecting the hospital department of the expedition, he never in the slightest degree intimated any opinion of a superfluity among them: on the contrary, I find in one of them, dated " Spike Island, the 8th of February, 1796," the following paragraph, viz. " a signal being made for sailing, and there being a probability that the wind may continue favourable, I must beg leave to state to you, that the medical staff for the troops under the command of General Whyte will not be adequate to its purposes, from the number left behind here in charge of the sick, unless those who may have returned to England with Admiral Christian's fleet, (which is supposed at present in this place to have arrived at St. Helen's), are ordered to join in the West Indies with the earliest opportunity." The medical officers here alluded to, were sent forward as soon as possible, with Mr. Weir, and they all joined those from Cork, at Barbadoes, in April, and afterwards arrived at St. Domingo about the beginning of May; and that there were afterwards no supernumeraries upon the hospital staff of that island, much less a superfluity of two thirds, as is so strangely asserted, Mr. Weir's correspondence will abundantly prove. Among his different letters to the Army Medical board, that dated " Mole St. Nicholas, the 25th of July, 1796," is particularly worthy of notice. The following are extracts from it: " Gentlemen, I am sorry that every dispatch of mine to the board is only a history of increasing mortality and accumulated horrors. I am under the necessity of drawing every medical man from the purveyor's line, and it is not doing them justice to make them suffer, in point of emolument, by giving them a more fatiguing duty. *Dr. Jackson* arrived here only yesterday; he is in the second day of fever; this morning his recovery is very doubtful; debility is coming

on very rapidly, with irritability of stomach, from which few recover." (It would be charitable to suppose that the doctor never regained his memory). Dr. Cleghorn expired yesterday, on the fifth day from the attack, with the mortal symptom of black vomit. Dr. Fellowes has struggled through a fever of a different kind for two months, brought on by ardent zeal in the laborious duty he was *day and night* engaged in; the symptoms very early gave us the most serious apprehensions for his life: his return to England may restore him,' &c. &c.

This letter, and others, particularly one from Mr. Wood, apothecary to the forces in St. Domingo, painfully prove the distress which was endured from the want of medical men; and 'if,' observes Mr. Keate, 'Dr. Jackson's testimony respecting the hospital staff in any part of the world could have deserved credit, it must have been respecting that of St. Domingo, where he served personally, and of which, next to Mr. Weir, he was the principal medical officer:—and if he has so egregiously and so injuriously misrepresented the state of that staff, how can he obtain belief respecting any others, with which he was much less acquainted?'

If any doubt on this subject still remain, the following extract from Dr. Bancroft's letter to the commissioners (p. 52), must completely decide a question, upon which we should have been astonished that there could have been two opinions, had we not had some experience of the presumption and obstinacy of Dr. Jackson, and the thorough willingness to be deceived on the part of the commissioners. Dr. Bancroft, after refuting various statements of Dr. Jackson, continues,

'It would be a waste of time and labour were I to follow him step by step, in order to detail his misrepresentations: let it suffice for me to do it respecting that particular instance which he appears to have selected, and to place his chief dependence upon, for inculpating the conduct of his majesty's former ministers, and of the army medical board; I mean the hospital staff assigned to Sir Ralph Abercrombie in 1795. It is well known that the mortality from the yellow fever was then, and had been for some time, so great in the West Indies, that the 20,000 men placed under his command for that expedition, were generally considered as chiefly destined to certain death; which was, indeed, their lamentable fate; and as medical men are even more exposed to mortality, from sickness, than other parts of the army, it was thought wise and humane to double the number which had been at first allotted for the expedition. Consequently, seven physicians, including *three* already in the Leeward Islands, were appointed to that service: another, Dr. Gahagan, was added by Sir Ralph Abercrombie, after his arrival in the West Indies, making up the number of 11, as Dr. Jackson has stated, together with 18 staff surgeons, 6 apothecaries, and 100 hospital mates; and, as far as my observation or information could enable me to judge, there was no want of sufficient occupation for the whole number, so long as they lived, and were *able to do duty*. Certainly the physicians had many more patients allotted to them than they could properly attend; for though the number of wounded was not great, the sick became, in a little time, extremely numerous; while of the eleven physicians, *six* died in less than six months after the army had arrived in the West Indies; and four others, of

which it was my fortune to be one, were rendered for a time incapable of duty by severe attacks of the yellow fever; one only escaping, who had become seasoned to the climate by long residence in the West Indies,' &c. &c.*

The only other question of moment, to which the pamphlets before us have given rise, is the propriety of continuing the general hospital system. Upon this subject a great variety of opinion prevails, and the difficulty of obtaining facts which may be depended upon, is considerable. But the commissioners confessed no such difficulties; they blundered through this part of their inquiry with as much assurance as they did through every other part of it, having Dr. Jackson for their leader, and Messrs. Borland and M'Grigor, of whom more anon, for supporters. They admit, that hospitals are useful, but object 'to the number which have been established, and to the magnitude of the establishments attached to them, and to the principle on which they have been conducted.' See p. 24 and 25 of Report.

It appears to us very strange, that among so many writers upon this subject, not one of them has stated the question with any degree of precision: in vain have we toiled through their desultory pages, without being able to get any tolerable notion of the distinction between general and regimental hospitals, except that one establishment is larger than the other; and we cannot conceive, that if a fair statement of the relative advantages of the two institutions had been made, there could have been much cause for opposite opinions. Dr. Jackson states that the regimental differ from the general hospitals, only by being on 'a smaller scale;' that, in the latter, the circle of action is *only widened*, the principle and manner of acting are not changed: and again, 'the management of a general hospital is a similar though more extensive duty,' than the management of 'the sick of a regiment.' This is sufficiently intelligible; but, with his usual confused mode of reasoning, he blends one question with another; and Dr. Bancroft has chosen to follow this absurd method, for, instead of informing us of the nature of the two kinds of hospitals, he tells us, 'that general hospitals are not only on a larger scale, but directed by medical officers of superior rank and abilities, and therefore much more may be learned in them, and in much less time, than in the regimental; and it is a manifest absurdity to suppose, that physicians from civil life, with their superior attainments, and their habits of acquiring knowledge, cannot become masters of every thing peculiar to military hospitals, with greater facility than hospital mates.' Then, losing sight of the main question, he proceeds to consider the merits of the military physician, and the military surgeon; so that we have been obliged to peruse the whole of these te-

* For additional proofs of the want of medical officers of every description, see our Review of Dr. Stewart Henderson's Pamphlet.

dious publications, in order to collect, separate, and arrange, the facts and arguments which are scattered through them, without system or method.

In one part of their Report, p. 24, the commissioners admit, that, in active service, general hospitals are necessary; while, at p. 80, they recommend the entire discontinuance of the general hospital system; asserting, says Dr. Bancroft, on the alleged opinions of those whom they call 'experienced medical officers,' (viz. Drs. Borland and M'Grigor), that it has been attended with the most destructive consequences to the sick soldiers, and that it has produced great expenditure and waste of every kind.' These are serious charges; and, if well founded, would be sufficient to determine the question. But, as the commissioners have named their authorities for such assertions, it is right to investigate their validity. We have already been obliged to allude to Dr. Jackson more frequently than we desire; but, however painful the task, we must perform our duty to the public, and expose more of his absurdities, because they have obtained the sanction of those who ought to have treated them with severe reprehension.

During the time that Mr. Pitt was in office, Dr. Jackson stated to him by letter, that '*two thirds of the means* provided for the uses of the army employed on foreign service, especially during the course of the late war, was [*were*] positively superfluous, as exceeding the just wants of the occasion.' But the premier, as Dr. Jackson himself states, 'did not deign to acknowledge the letter, even by one of his under secretaries;' it remained for the Commissioners of Military Enquiry to be duped by a scheme, apparently economical, but practically impossible; and for the complete refutation of which we refer to Dr. Bancroft's first letter. If any thing were wanting to shew the gross impropriety of consulting Dr. Jackson upon these matters, the following extract from the fourth pamphlet in our list were sufficient; indeed he must have felt how ridiculous it would appear to most men; for he informs us,

'I am serious in what I say. Let a division of the army, the *largest* collected at one place in Great Britain, and one, moreover, stationed at the *least healthy* position in the island, be divided into two equal parts; that the condition of the parts be as nearly alike as possible; let the half of the several regiments of which the force is composed be thrown into one division, the other half into the other, the companies taken from right to left alternately; and that there be no advantage or disadvantage, on either part, on the head of discipline and economy, let the troops remain in their barracks or tents, in the same manner as they were formerly, only let the sick of one division be committed to the care of *regular physicians*; that of the other, to a person who has served as *regimental surgeon*. As the troops thus committed to medical experiment are equal in number, so they are supposed to be equal in all things which relate to their health; the hospitals as nearly so as possible: but though the extent and external form of the hospitals be the same, it is allowed, that the persons to whom the medical care is committed, make such arrangements in the interior, as may best correspond with their views of successful practice.'

These things being adjusted, Dr. Jackson supposes that the Physician General, Sir Lucas Pepys, will be selected by the regular physicians as their champion; 'for, from the nature of his relations with the army, and, moreover, from being President of the College of Physicians in London, he is chief of the regulars, and officially the first medical person in the kingdom.' To match the doughty Baronet, Dr. Jackson offers no less a personage than himself; for, he very properly observes, 'I am constitutionally more adventurous than wise—indeed, I claim it as my right. I am, I believe, the oldest inspector of hospitals, possessing a physician's diploma and physician's commission, who has acted as regimental surgeon: I am also *notorious among the irregulars.*' Here the enterprising inspector of hospitals has made two small omissions; he has not informed us for what he is 'notorious,' the notoriety which we have discovered in him not being much to his advantage; and he has omitted to state in what manner, after officiating as surgeon's mate, he became possessed of a physician's diploma, whether by purchase, or by special grace. We have heard, to be sure, that the university of St. Andrew's had the honour of equipping this *notorious irregular,* as he chooses to style himself, with a diploma; but as he is very hostile to this mark of distinction, when obtained after a fair and personal examination of the candidate's talents and merits, and has bestowed much abuse upon it, we are unwilling to believe that even Dr. Jackson would suffer himself to be degraded by a degree which his footman might purchase with less than a year's wages. Be this as it may, he continues; 'in the system of medical arrangements for armies, published in 1805, I make the bold assertion, that the medical staff is too numerous, consequently that it is not adequately employed; and, persisting still in the opinion, I here offer the physician-general two physicians, viz. Dr. Bancroft and any one he pleases, to assist in the execution of a duty, which I, as an irregular, profess to perform singly, even without a clerk to write my prescriptions.'

We leave our readers to make their own reflections upon the foregoing propositions, and proceed to inquire into the evidence of Drs. M'Grigor and Borland, and their pretensions to the high character given them by the commissioners. Dr. M'Grigor became a regimental surgeon in 1794; and in 1801, though he had attained no higher rank, acted as head of the medical staff of the Indian army in Egypt, from the accidental circumstance of being the senior regimental surgeon of that army. From him the commissioners learned, and published, with some degree of triumph, 'that, under an experienced and judicious management of the medical department of an army, the general hospital establishment, (including the large quantities of wine, medicines, and purveyor's stores, belonging to it, which usually accompany our foreign expeditions), is superabundant, if not altogether an unnecessary incumbrance.' *Report,* p. 24. And that the army under Sir David Baird, consisting of eight thousand

men, had, with the exception of Dr. M'Grigor, and of a storekeeper, only the usual regimental officers, who were fully competent to the charge of their own sick. Now, it seems, that this army was never engaged actively, was generally kept in healthy stations, and suffered very little sickness; so that the regimental surgeons might have been '*fully* competent to the charge of their sick,' without at all proving the inutility of the general hospital system. But Dr. Bancroft states, 'that, moderate as the sickness of that army was, in Egypt, the medical establishment in question *were* [was] *not* "*fully competent* to the charge of *their own* sick." Dr. M'Grigor, on whose statement this assertion of their competency was made, has totally forgotten the dismay which pervaded the medical officers of the Indian army, from the *highest* to the lowest, when the plague was officially reported by me, to exist in one of the regiments composing that army, although that regiment was his own, the 88th.' Dr. Bancroft then exposes the extreme confusion which prevailed amongst these officers, the consequent neglect of the patients, and the spreading of the plague, till the medical officers of the *British* establishment were finally obliged to take the sole charge of the plague-patients of the East Indian army. The whole of this account, upon a less serious occasion, would prove highly amusing; for Dr. M'Grigor, unfortunately for himself, contradicted Dr. Bancroft's statement in so rude a manner, that, in his second publication, this gentleman has made us acquainted with the full particulars, which he had omitted in his first, out of delicacy to some of the parties. But Dr. M'Grigor does not escape with ridicule alone; he is accused of grossly deceiving the commissioners, in the evidence which he gave them upon oath. Mr. Keate asserts, that, upon that occasion, Dr. M'Grigor represented the medical staff sent from this country to join the army from India, to have been 'a *complete* medical establishment, consisting of between *twenty* and *thirty* in number;' whereas it is proved to have contained 'no physician, and consisted in all of but *eight persons*; viz. one inspector, one purveyor, one surgeon, one apothecary, three hospital mates, and one purveyor's clerk.' Mr. Keate then satisfactorily proves, that the 'very large quantity of medical and purveyor's stores, including much wine sent out in two transports,' stated by Dr. M'Grigor to have been "sent out with the staff" above mentioned, 'were no more than the usual assortment of 2,500 men going on a secret expedition, and calculated for one year's consumption. Instead of "much wine sent out in two transports," there does not appear to have been a single bottle of wine sent from this country for that expedition.' We should have been glad to state, that Dr. M'Grigor had done away these foul imputations upon his character; but, after reading his letter to the commissioners, and his reply to Mr. Keate, we think his best friends will be happy if we are entirely silent upon the subject; and if he is possessed of any sense of the value of re-

putation, we think he will long and deeply regret, that he was induced to publish the scurrilous pamphlet which his passion dictated.

Of Dr. Borland our account will be short: he has wisely abstained from publishing; and it would hardly have been known that such a person existed, but for the mischievous kindness of the commissioners in bringing him forth from his protecting obscurity. We find, that he was a surgeon's mate in the years 1793 and 1794; and stated to the commissioners, that great mortality and other unfortunate consequences occurred to the troops at that time in Flanders, in consequence of their removal into general hospitals, and being placed under the care of medical men, elevated from civil life to the situation of staff physicians and surgeons, being inexperienced in military habits and the conduct of army medical practice. This arrangement is asserted by the commissioners to have taken place in 1794, when the army medical board was formed, and a new system was adopted. Now it appears from Mr. Keate, and he asserts nothing without ample proof, that the army medical board did not, at that period, appoint any officers from civil life, and Dr. Borland had actually left Flanders in February, or very early in March of the same year; and when called upon by Mr. Keate to substantiate his assertions, by documents, he declined it, for the best reason in the world, because he was unable to adduce any. Another unfortunate result of Dr. Borland's publicity, is, that we learn, that whilst he was in the West Indies, he complained of not being promoted to the rank of physician, and expressed his perfect readiness and great desire to appear before the College of London, and undergo the necessary examinations. When, however, he returned to England, and had full opportunity to qualify himself for the rank he was solicitous to obtain, and was informed by the Board, that he could not be promoted without it, so far from expressing his former eagerness to be examined, he set off for Scotland, and soon afterwards stated himself to be 'qualified as a physician, and a licentiate of the College of Edinburgh.' Even if this had been true, he would not have been eligible to the appointment of army-physician; but it appears that the College of Physicians of Edinburgh have most unaccountably omitted to insert his name in their list of licentiates. If our readers are not now satisfied with our account of the evidence upon which the commissioners founded this part of their report, we must refer them to the works themselves, which we can affirm, that we have reviewed with strict impartiality.

It appears to us, that both general and regimental hospitals are essential to the well-being of an army. Regimental hospitals are useful to receive the sick of each regiment in the first instance, where the indisposition is slight, and may be safely entrusted to the care of the surgeon and mates, occasionally inspected by a physician: they are also proper for the wounded, and for those on whom

operations are to be performed; but these always constitute the smallest proportion of the patients. The visit of the physician to such an establishment, would be merely to see that due order was preserved, to control the subordinate officers, and to ascertain, that every severe case was conveyed into the general hospital, where his duty would become more serious and important. There being no question among well-informed men, (whatever Dr. Jackson and the commissioners may assert to the contrary), that physicians are eminently serviceable in the army. If general hospitals are to be dispensed with, a physician must be appointed to every regiment, certainly a needless expense; or his time must be consumed in running from hospital to hospital, with few cases of consequence to claim his attention. If this could, with difficulty, be effected at home, it is evident, that abroad, where the greatest sickness is likely to prevail, it would, at least, be an incumbrance, that might retard and impede the operations of the army, and in many circumstances be utterly impossible. But we contend, that, even at home, general hospitals are preferable, for the very reasons which the commissioners have assigned for their abolition, viz. economy, and superior treatment and accommodation for the sick. It must, of course, be supposed, that such hospitals, and we believe there are only five in the whole kingdom, will only be established, where several regiments are assembled, and where the number of sick will consequently be considerable. Dr. Bancroft observes, that it will scarcely admit of a doubt, that greater economy will result from all the sick being brought together into one large hospital; 'it being an axiom, the truth of which is daily proved, and more frequently in this than in any other nation, that a large establishment may be carried on at less expense of every kind, and with greater perfection, when united into one system, than it could be when subdivided into several similar systems, which should all be carried on in separate and distant establishments.' We appeal to those of our brethren, who have witnessed the order, the cleanliness, the excellent management, of our great hospitals in the metropolis; who have witnessed the facility with which the medical officers perform their duty, prescribing for an immense number of patients within a very short space of time, and from the great variety of cases, acquiring discrimination and skill, whilst their judgment becomes matured. We appeal to those who have witnessed these things, and doubt not their supporting our opinion, that such institutions are of eminent utility in civil life, both to the patient and to the physician; and we know not in what military general hospitals differ. 'Certainly,' says Dr. Bancroft, 'there is no advantage possessed by civil hospitals which may not be possessed in an equal degree by military ones; and the latter have advantages, besides, which the former can never enjoy, at least in a similar degree; such as the strong hand of military power to check, correct, and punish abuses, and the high incentive of promotion to

the faithful discharge of duty.' If, then, the magnitude and extent of these institutions be proved not to be too great, Mr. Keate has fully shewn, that the objection of the commissioners to their number, was made 'without a due knowledge or consideration of the circumstances which gave rise to their establishment;' and, after refuting every argument brought against them, he concludes, 'from the experience of the last and of former wars, that, while military operations are undertaken upon a large scale on the opposite coasts of the continent, there is not merely a very great convenience and economy, but an absolute necessity for establishing general hospitals at home for the relief of our armies abroad.' It requires no great stretch of intellect to conceive, that, to enable an army to perform its various evolutions with effect, it must be disencumbered of its sick; but if each regiment is to be obliged to provide for all its sick men, it is difficult to imagine the scene of confusion which must often ensue: one large establishment would not only prevent this, but would, for reasons before stated, give the patients the best chance of recovery, and consequently promote the greater efficiency of the army. The commissioners have, unfortunately for themselves, asserted the superiority of the medical system of the East Indian army: but we have, in a former part of this article, shewn the futility of their statement; and a better instance of the necessity of a general hospital could not be cited, than that of the total want of management, the indecision and confusion which prevailed among the regimental surgeons, upon the appearance of the plague.

We shall now very briefly consider some objections which have been urged against the general hospital system. Its opposers have alleged, with great complacency, that the mortality is much greater in general, than in regimental hospitals. A fair comparison between the two institutions in this respect, can hardly be instituted; for the circumstances of each materially differ: and certainly officers like Drs. M'Grigor and Borland, are not to decide upon the merits of a system, with which they had little or no acquaintance; indeed, if any doubt as to the nature of their evidence existed in our minds, it would be entirely removed by the confined and partial grounds on which they have formed their opinion. From the different statements which we have seen, we are by no means convinced, that the mortality is greater in the one species of hospital than in the other; we must have more facts, and these stated by uninterested individuals, before we can determine this point. But admitting it to be true, it does not in the least militate against general hospitals; for all parties allow, that these receive the worst cases, and many patients are even sent into them by the regimental surgeons, '*in articulo mortis*, many dying *in transitu* from the bier to the bed,' in order that their deaths may not happen in the hospital of the regiment, and that the responsibility thereof may attach

solely to the officers of the hospital staff;' whilst it is well known, that in the regimental hospitals the slightest cases of indisposition are admitted. The next objection is a very singular one indeed: it is no other, than that the treatment in regimental, is superior to that in general hospitals. This allegation is *primâ facie* absurd; and as no proof whatever is adduced in support of it, we are not disposed to contend with a shadow.

If the commissioners were deceived by such unfounded assertions, we are not much surprised that they were the dupes of Dr. Jackson's sophistry. He observes, 'that general hospitals, which are ordinarily collections of sick indiscriminately thrown together, are difficultly organized and preserved in order; for they consist of a mass of materials originally heterogeneous; regimental infirmaries, on the contrary, which receive the sick of a particular corps, still retain something of the organization and discipline of the corps to which they belong: they are thus, comparatively speaking, little liable to abuse; that is, they may be kept in order with comparatively little effort.' And in another place we find, 'the general hospital is a place appointed for the reception of the sick, or ineffective parts of an army; and *as these are thrown into this receptacle in the mass*, the organization, which belongs to the military body as its distinctive character, is lost in the first instance; and, under physicians acquainted only with the loose organization and fluctuating habits of society in civil life, it may probably never be again restored.' We think a drill serjeant will make the best reply to this nonsense, and that which immediately follows, about general hospitals destroying the character of soldiers; unless, indeed, Dr. Jackson speaks from the effect of his own practice. We make no comment on the following extract from Dr. Bancroft's second publication, p. 122, (note).

'I have lately seen a letter, dated the 26th of July, 1808, and written by a gentleman who is now settled as a physician in a large town in the north of England, and was formerly employed at Chatham hospital, under both Dr. Mitchell and Dr. Jackson; in which, after mentioning the terror that Dr. Jackson's practice, and its attendant mortality, had excited, he declares, that the soldiers in the barracks, when taken ill, and visited by the assistants of the hospital, "not unfrequently *implored* that they might not be carried into it, as they felt assured they must die there. An Englishman (he adds) seldom assumes a humiliating posture; but English soldiers have *supplicated* exemption from the hospital at Chatham *on their knees*."'

The eighth pamphlet is Dr. Jackson's last attempt to vindicate himself from the charges of Mr. Keate; but we cannot compliment the Dr. upon his success: he has not adduced a single argument in refutation of the statement, which we quoted in a preceding part of this review, so damning to his veracity, and implicating so much his honour and integrity. It appears to us, that Dr. Jackson aimed at notoriety, and cared little how it was obtained: he was ambitious to

be at the head of the medical department; and this he could only hope to attain, by successfully opposing the present system and regulations. This letter principally consists of a defence of his practice, blended with invective and abuse on the surgeon-general.

The last article originated from an unguarded expression of Mr. Keate, that the special board, appointed to inquire into the state of the depôt hospital in the Isle of Wight, 'had made their inquiry completely *ex parte*;' and that it was 'hastily made.' As this, however, is entirely a dispute between the professional practice and conduct of individuals, we shall not extend our account, already too long. It is sufficient to state, that Mr. Keate sent the members of the board a fair explanation of his reasons for entertaining such an opinion of their proceeding: and, whatever colour these gentlemen may put upon the transaction, we are still not satisfied, that their investigation was so complete and satisfactory, as it would have been, had they devoted more time to it, and examined *both* sides of the question; though we must admit, that, whilst they were in the Isle of Wight, they were more actively employed than Mr. Keate had been aware of. They arrived in the morning of the 30th of December, and departed about noon, on the following day; but they were very indefatigable in doing their duty, and, considering the short space of time, certainly went through much service; and, in some respects, Dr. Jackson may thank them for their Report.—Why he has since been placed on the half-pay list we have not learned.

We have, perhaps, entered more fully into the consideration of these pamphlets than their contents deserve, since they are to be regarded merely as ephemeral productions; but when they are forgotten, the questions discussed in them will be interesting; and we have endeavoured to give a general view of the subject, divested of the partiality of the commissioners, and freed from the gross abuse and disgusting personality of some of the disputants. We think reformation is yet wanting in the medical system of the army; but directly the reverse of that which the commissioners have recommended.* We hope that they will now be convinced of their errors; that they will see, with contrition, the mischievous consequences which their Report has occasioned; and receive, with becoming humility, the chastisement which they have experienced from all quarters, and deservedly; for they have been guilty of no less a crime, than that of abusing their trust, of attempting to deprive our armies of the best medical assistance, and of endeavouring to diminish the consequence, and degrade the character, of the chiefs of a most learned, polite, and humane profession.

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* In our review of Dr. Stewart Henderson's work upon the Yellow Fever and Military Hospitals, we shall have occasion to revert to this subject, and to offer some remarks upon the qualifications of army physicians.

ART. XLI. *An Inquiry into the Symptoms and Treatment of Carditis, or the Inflammation of the Heart; illustrated by Cases and Dissections.* By John Ford Davis, M. D., &c. 12mo. pp. 190. Longman & Co. Printed at Bath.

NOTWITHSTANDING the promised illustration by cases and dissections, we must acknowledge that the title of this little work did not excite in our minds any very ardent anticipation of the instruction to be derived from a perusal of it. When it is recollected that the disease, which the author professes to illustrate, has been an object of research with many of the most able systematic writers, and with all the morbid anatomists (if the term may be allowed) of the last two centuries, and that it has, nevertheless, been hitherto involved in extreme obscurity:—when it is known that, of the symptoms which they have detailed, as characteristic of carditis, not one is pathognomonic; and that even those which they have particularly assigned to it, such as palpitation, syncope, and irregular pulse, are certainly not always present with the disease;—the great difficulty of the inquiry must be obvious; and to this circumstance, rather than to a deficiency of investigation, our ignorance on the subject must necessarily be attributed.

Without any disparagement, therefore, of the abilities of Dr. Davis, a degree of scepticism will probably accompany his readers throughout the volume; and their uncertainty, as to the diagnostic symptoms of carditis, will perhaps remain with them at the conclusion: more especially as the cases, which he relates, are only three in number, and of these only *one* occurred under his own observation. Every physician is aware of the strong impression, which single cases, of a peculiar character, have stamped upon his mind, particularly in the early years of his personal experience, and of the facility with which he fancied, that such observations amounted to actual discoveries; and he is not less convinced, after a time, how unfounded such suppositions were, and how much his observations are chastened and corrected by subsequent research. We do not assert, that our author has been led to this inquiry by such an impression; but we cannot help expressing a wish, that he had delayed the publication of this volume, until farther investigation had either confirmed and multiplied his observations, or taught him that their accuracy was questionable. For although *three* histories may not be literally obnoxious to the objections urged by Sydenham and other writers, against the publication of *single* cases; yet, when compared with the numbers, observed and recorded by preceding physicians and anatomists, the weight of the evidence deduced from them is trivial. 'Profecto eos ipsos, qui se aliquid certi habere arbitrantur, addubitare coget doctissimorum hominum de re tanta dissensio.' *Cic.*

After a chapter of preliminary observations, in which Dr. Davis acknowledges, that inflammation of the heart is not a frequent occurrence; that its effects have been detected in the dissecting room, when its presence had never been suspected by the physician; and that practical and systematic writers have as yet been unable to point out its diagnostic marks;—he proceeds, in the 2d section, to relate the observations of various writers relative to the disease in question.

Dr. Davis has compiled, with considerable industry, the opinions of a great number of authors, chiefly of the modern systematics and pathological anatomists, with respect to the symptoms indicative of inflammation of the heart; from which the uncertainty of those symptoms, and the incongruity of the opinions of the writers, are equally conspicuous. Avenzoar, Salius Diversus, and Rondeletius, quoted by Dr. Freind, mention, as the symptoms of carditis, '*intense heat*, frequent syncope, and *less pain and dyspnœa* than in peripneumony;' while Dr. Cullen, after Vogel, affirms, that 'the symptoms of carditis are nearly the same with those of peripneumony, but *more severe*;' (see Nosol. Meth. *note*): and, according to Van Swieten, '*great heat* about the middle of the thorax, *absence of pleuritic pain*, disturbed pulse, and syncope,' characterize the disease. Whereas Selle, in his Pyretologia, instead of intense heat and absence of pain, enumerates, 'dolor punctorius sub sterno,' and '*calor exiguus*,' among the diagnostics of carditis: Burserius mentions 'ardent thirst,' and Daniel (Systema Ægritudinum) includes the remarkable symptom, 'hydrophobia,' in the character of the disorder. Palpitation, syncope, and irregular pulse, are stated as concomitant marks of the disease by the majority of writers; but syncope is said to be 'sometimes wanting' by the late Dr. Gregory, and to be 'sometimes present,' by Dr. Baillie; who also observes, that palpitation and irregular pulse occur 'often, but not always.' Difficulty of breathing, and cough, are mentioned by some writers, and omitted by others. And, lastly, Darwin, who, with Macbride, considers 'the signs of carditis so obscure and equivocal, that it must be next to impossible to say when it is present; so that it will always be confounded with the pleurisy or peripneumony;' adds, that 'it is attended with constant vomiting.' The definition of inflammation of the heart by our latest writer on morbid anatomy, Dr. Baillie, is the same with that of Dr. Cullen,* with this exception; he leaves out the word 'anxiety;' and instead of stating that irregular pulse, palpitation, and syncope, are characteristic of the disease, he says, that the two former symptoms are 'often,' the last is 'sometimes' present.

* Dr. Cullen's definition of carditis is as follows: 'Pyrexia; dolor in regione cordis; anxietas; spiritus difficilis; tussis; pulsus inequalis; palpitatio; syncope.' *Nosol. Meth.* G. XIII.

Of the symptoms admitted by the high authority just quoted, it may be remarked, that the fever, cough, difficulty of breathing, and pain about the region of the heart, are the only permanent ones; the others are casual and incidental. Now, it is plain that these symptoms are common to inflammation of the lungs; nay, that they are the very symptoms, which not only the nosologists, but Hippocrates and Galen themselves have mentioned, as constituting the character of pneumonic inflammation; if pain in the chest generally be substituted for pain in the region of the heart. Dr. Davis himself is compelled to acknowledge, that scarcely one symptom is above noticed by which carditis can be distinguished from pneumonia; and he does not deny, 'that this arises more from the difficulty of the subject, than from any neglect or inability of that excellent pathologist' (Dr. Baillie). He proceeds farther to confess, that, 'since carditis is so often connected with peripneumony, and since the symptoms, which more immediately arise from inflammation of the heart, as palpitation, syncope, &c. are not always present, it will perhaps be impossible to establish a diagnosis upon solid principles.' p. 61.

This being admitted by the author, as the inference deducible from a general view of the accumulated observations of previous writers on the subject, an attempt to contravene that inference, by a reference to three cases only, would have very much the appearance of an absurdity. Accordingly we find, that neither do the cases warrant any such attempt, nor is the author disposed to make it, with one exception; in which, we think, he is not better supported by the cases detailed by himself, than by those already on record.

The first case, which was communicated by Dr. Haygarth, occurred in master W. a boy seven years old. The Report commences January 22d, 1785, being the fifth day of fever, of which the only symptoms mentioned, are 'wandering pains, affecting sometimes the head, sometimes the leg, and at others the heel,' with the pulse at 140. After purging and bleeding, the headache abated; but on the 25th, (eighth day) the symptoms were 'pain of the head, epigastrium, left side of the chest, and leg. Pulse 156,' although he had been purged and bled again. A blister was ordered to be applied to the epigastrium, and a third blood-letting was prescribed. Some delirium occurred in the evening. On the following evening, after a fourth bleeding, the symptoms were 'greatly relieved, but the pulse was at 126.'—Jan. 28th, in the evening, 'acute pain in the left mamma. Is seldom hot. Sleeps frequently, and moans while awake.' Six leeches were applied to the seat of the pains; and on the 29th it was much relieved; p. 120.—Jan. 30. No mention is made of this pain: the Report is, 'p. 126, fingers cold, wandering pain of head, side, abdomen, hip, and leg: two stools; moaning.' These pains continued, delirium succeeded, and death took place on February 2d. Dissection exhibited unquestionable marks of inflammation in the

internal surface of the pericardium, and on the external surface of the heart.

The second case, which was likewise not seen by the author, is very imperfectly described. The subject of it was a young lady, aged 16, in whom inflammation of the feet and ankles was the first symptom, and occurred after dancing, as in the preceding case. This suddenly disappeared, and 'hysterical symptoms supervened:' for several days before she died, (the duration of the disease is not stated), 'the symptoms were, general spasm, and continual agitation of the body, watchfulness, outrageous talking, and *singing* in a maniacal manner; p. 120, hard and full.' The pulse afterwards increased to 136. She did not sleep during nine days previous to her death, nor was there any abatement of the delirium. 'No cough, nor any other symptom of pneumonic inflammation, occurred at any period of her illness;' (then, of course, no *pain* in the thorax). But, in the midst of her delirious raving, she was *once* heard to exclaim, 'Oh, my heart! I wish it would burst!' A lumbricus was passed during the complaint. On dissection, little or no morbid appearance was detected in the brain or its membranes; but the ventricles of the heart were inflamed, and covered internally with coagulable lymph.

The third case, which fell under the author's observation, is well narrated, and less obscure in its nature than the preceding. We shall transcribe it.

'Miss A. twelve years of age, complained, during the first week, of pain under the sternum, in the left shoulder, and at the upper and inner part of each instep. The pain in the insteps lasted 10 days, and was so violent from the 3d to the 10th day, as to prevent walking; for the performance of which she was not disqualified by the severity of the other symptoms. On the 8th day there was difficulty of breathing, and palpitation; which last symptom became so extremely violent in the more advanced stage of the disease, that the whole chest seemed in motion; and the immediate action of the heart was compared to a hard body grinding against the ribs. After the first 10 days the pain in the insteps and shoulder was no longer felt, while that under the sternum became extremely severe, and extended to the left side. Notwithstanding the difficulty of breathing increased after this period, and was attended with a slight cough, there were occasional remissions of it and of the pain, especially after opiates, which were administered from an opinion of the spasmodic nature of the complaint. The pulse was small and quick, seldom beneath 130, *never unequal nor intermitting*, except occasionally during sleep. Skin in general only moderately warm; but great heats, with perspiration, occasioned by the extreme anguish which she felt in the region of the heart, frequently took place. Screaming, and the most violent jactitation of the body, were also produced by it. Tongue clean and moist till towards the last, when it became whitish. There was considerable thirst. Urine rather high coloured; and it was remarked, that some, passed 10 days before death, after standing a few hours, deposited a sediment, and appeared milky on being shaken. Bowels rather costive, but stools were often procured by means of common cathar-

tic medicines. Vomiting commenced 5 days before death, and continued to the end. *Syncope never occurred.* Towards the close of the scene there was some pain in the region of the liver. She was perfectly sensible throughout, there being not the slightest affection of the head. The disorder lasted 26 days.

'She generally leaned forwards, with an inclination towards the left side, and did so even while in bed, placing a pillow against her heart. She could, however, lie down during the remissions of difficult respiration, though not on the left side. Sometimes she could not bear the least pressure upon the region of the heart.

'Two bleedings were employed without relief, one on the 8th, and another on the 18th day. The blood drawn exhibited an inflammatory crust. A lumbricus was voided early in the complaint.' p. 81—5.

On dissection, the pericardium was found very much inflamed and thickened, and adhering firmly in every part to the surface of the heart, into the muscular substance of which the inflammation had also extended to some depth. The heart appeared to be enlarged. The lungs on the left side were considerably inflamed, and adhered to the pleura. The pericardium was likewise connected by adhesion to the pleura.

The *fourth* section contains the author's 'conclusions from the foregoing cases,' which are compared with the observations of former writers, and afterwards briefly recapitulated at the end of the work. The first conclusion, which constitutes the only attempt to fix on a pathognomonic symptom, as we have already mentioned, is this: 'The *anguish that is felt in the region of the heart* appears to be more characteristic of carditis than any other symptom.' This is twice repeated. 'If there be a pathognomonic symptom, it is *the extreme anguish*,' &c. pp. 163 and 190. Now, this inference is, we conceive, altogether unjustified: it is, in reality, converting a *single* occurrence into a general fact. For, in the first case, no such 'anguish' was observed: there was a *pain* in the left side of the chest, indeed; but it was acute only one day, and appears to have existed but 5 days out of the 16; namely, from the 25th to the 29th of Jan. inclusive. In the second case, it is expressly said, that no symptom of pneumonia was present, consequently no pain: and it would be as reasonable to infer, that the patient was free from all uneasiness from her maniacal songs; as that she was in anguish, from one delirious expression about her heart. Dr. Davis is too correct to have drawn this inference, had not the strong impression made upon his mind by the case, which he witnessed, somewhat perverted his reasoning. Besides, such anguish in the chest is not recorded in the histories detailed by Bonetus, Morgagni, and others. Dr. Davis is of opinion, that only one case, related by Morgagni, can with propriety be referred to carditis; namely, that which is described in Epist. XXIV. Art. 2. of his work 'De Sedibus et Causis Morborum.' Now, in that case, the only symptoms were, thirst, dry cough, syncope when the patient attempted to lie on the

left side, and a small, imperceptible pulse. No pain is mentioned. We are disposed, however, to believe, that many instances of carditis and its consequences, are to be found in the valuable collection of morbid anatomy of that great writer; and in these we find no confirmation of the existence of the supposed 'anguish.'

In the 29th Art. of Epist. LIII. of Morgagni, a case is recorded, in which the heart was wounded by a sword; and after death the pericardium was found thickened, partially adhering to the heart, and containing a 'yellow mucous *pus*' in its cavity. Inflammation was here sufficiently evident, whether we consider the cause, or the appearances on dissection: yet the patient 'never complained of any anxiety of the heart, nor of *any pain whatever*.' The case described in Epist. XLV. Art. 16, seems to be a complication of pneumonia and carditis; yet 'no pungent pain' was complained of. We are inclined likewise to include, under the head of carditis, those examples of universal adhesion of the heart and pericardium, of which several are detailed by Morgagni; namely, in Epist. XXII. Art. 4, a case, in which this appearance was combined with inflamed lungs;—in Epist. XXXV. Art. 12, another, which was 'supposed to be pneumonia,' and terminated in three days, but the lungs were perfectly sound; &c. &c. not to mention the *fifty-four* instances of such adhesion, which the same writer quotes from other authors, in his admirable dissertation on its connexion with palpitation; in many of which no pain is mentioned, and in none of which does any 'extreme anguish' appear to have been observed. See Epist. XXIII. Art. 17, *et seq.*

Our limits will not permit us to follow the author through his commentary upon the other symptoms, his general observations on the causes, &c. or those on nosology, and particularly on the proper character of carditis, which are detailed in distinct sections of the work. They are sensible, and clearly stated: but it is obvious, that they furnish no essential additions to our information on the subject. In short, we conceive that this treatise leaves the symptoms and diagnostics of carditis under the same cloud of obscurity, under which they were previously concealed; and that, so far from determining any thing like a pathognomonic sign, the cases here detailed rather tend to confirm the uncertainty and variety of the signs, which accompany inflammation of the heart. Perhaps it would be impossible to bring together three instances of an acute disease, of any one *genus*, (of pneumonia, for example), in which the course of symptoms should differ so completely, as in the three cases of carditis related by Dr. Davis.

Before we conclude, we may remark, that it was shrewdly suggested to the author by a friend (Dr. Sherwen), that these three cases 'were probably varieties of acute rheumatism attacking the heart; and that the inflammation which had appeared in the feet and ankles of Miss H. C.;—the pain of the insteps and shoulder of

which Miss A. complained;—and the wandering pains in master W.;—belonged to that disease, although the joints of the two last were not inflamed. He was the more inclined to adopt that opinion, from the absence, in all the cases, of that *strong* rigour, which is known to usher in every inflammation, except that of gout and rheumatism.' p. 136. But the author doubts, 'whether internal parts become inflamed in any state of rheumatism;' and he quotes a remark of the late Dr. Heberden, whose diffidence in his own observation led him to state the matter as problematical, after he had said, 'tamen nonnullos curavi, in quibus rheumatismus fines consuetos transiliens in ventriculum, aut cerebrum, versus fuit.' (Comment. p. 394). Now we conceive, that this fact has been fully established by Dr. Haygarth,* who lost 12 patients of 174, if our memory be correct, by a metastasis of acute rheumatism to the internal organs, producing the symptoms of phrenitis, pneumonia, &c. and terminating fatally. We have ourselves witnessed two fatal terminations of acute rheumatism, which quitted the joints, and was succeeded by pneumonic inflammation. The heart, too, seems particularly liable to suffer in rheumatism, which occasions enlargement of the parietes of that organ. Rheumatism is the only cause of such enlargement of the heart that is specified by Dr. Baillie;† who adds, that Dr. Pitcairn had observed this in several instances. We have heard the fact stated by other practitioners; and we know that a paper was read lately in the Medical and Chirurgical Society in this metropolis, containing several cases of this consequence of rheumatism attacking the heart, which will probably be published by that society before our volume is completed. We, therefore, think that the suggestion of Dr. Sherwen is worthy of attention. In a practical view, perhaps, it may not be of the highest importance: for, when internal organs are thus attacked by metastasis, with acute inflammation, whether it be gouty or rheumatic, the remedies, we believe, must be the same, as are employed in a simple phlogosis of those organs.

On the whole, this little volume, though premature, in a general view, will be an useful compendium of the records of pathologists on the subject of carditis, to the student, or to the practitioner, whose opportunities of reading and research may be limited. Dr. Davis has evinced abilities and erudition worthy of a better subject; and his language is peculiarly neat, unaffected, and perspicuous. We give him this praise in regard to the *literary* part of his work the more pointedly, because we have but too much reason to regret the neglect and abuse of literary composition in the majority of contemporary medical writers.

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* Clinical Reports on Rheumatism, &c.

† Morbid Anatomy, p. 46, 2d edition.

ART. XLII. *Nosology, or Diseases arranged in their Classes, Orders, Genera, and Species, accurately defined, with copious Notes and References.* By William Cullen, M. D. &c. &c. 12mo. pp. 138. Cox, &c.

FROM a dedication to the Rev. Mr. Townsend, which follows the title-page of this book, we learn, (what we should not readily have discovered from intrinsic evidence), that it is meant for 'a *translation* of Dr. Cullen's Nosologia;' but for what purpose it was published, or for whose use it was intended, we are not informed, and must confess ourselves wholly unable to conjecture. This, however, is clear, that it could not be designed for the mere English reader; for he would profit little by the transcript of the Latin synonimes, which constitutes the 'copious notes and references,' and which occupies more than one half of the volume. To the student it would be equally useless; for what student of medicine is so ignorant of the learned languages, as to be unable to read and understand Dr. Cullen's Synopsis? If such there were, we would advise him to have recourse to a good dictionary, rather than to this pretended translation; as we do not think his notions of disease would become very accurate, or his language very refined, from being told that *polydipsia* stood for *thirst*, and that *dysphagia* signified *difficult* SWALLOW! or by treasuring up in his mind such definitions as the following, which we give at random, the diction of the whole being equally elegant.

'Class I. *Febrile Diseases.* 1. After shivering, or a sense of coldness,—2. a quick pulse,—3. increased heat,—4. with interruption or derangement of functions,—5. diminution of strength.'

'Genus xxii. *Gout.* 1. Hereditary,—2. arising without apparent external causes,—3. but generally preceded by an affection of the stomach;—4. pyrexia;—5. pain at some one of the joints, generally at that of the great toe;—6. certainly attacking the articulations of the feet and hands chiefly;—7. returning at intervals;—8. and often alternating with affections of the stomach, or other internal parts.'

But awkwardness of style is not the only fault; the publication before us abounds with instances of the grossest negligence. A number of names, for which we have good English synonimes, such as *hernia, hydrocephalus, paralysis, pyrosis, frambœsia, syphilis*, &c. are left untranslated; and of one (certainly no unimportant) disease, *frambœsia*, the definition is omitted altogether!

ART. XLIII. *An Essay addressed to Medical Students, on the Importance and Utility of the Profession; and on the urgent Necessity there is for them to obtain a more perfect Knowledge of its different Branches, than is acquired by Pupils in general. &c. &c. &c.* 12mo. pp. 77. Highley.

WE believe the writer of this essay to be a sincere and well-meaning individual; but the perusal of his work is not calculated to excite any very exalted notions of his talents or capacity. An inquiry, which should fix the importance of medicine upon a firm foundation, and which should clearly and forcibly deduce from its objects the nature and extent of the acquirements, that ought to be possessed by those, who become members of the profession, might afford scope for many interesting and useful discussions. No such views, however, are to be found here. A string of common-place, pompous *truisms* concerning the blessings of health, being all that is to be met with on this part of the subject. 'If we look round,' says the author (p. 5), 'and contemplate the numerous occupations of individuals, who labour for the benefit and happiness of mankind; if we reflect how many *thousands* are daily employed in contributing even to the *luxuries* and *unnecessary wants* of our fellow-creatures; if we farther consider, that in the splendid mansions of the affluent, the noble, and the great—nay, even in the sumptuous palaces of royalty, (as well as in the humble cottage of the peasant), the alleviation of pain, the restoration of health, and the preservation of life, are objects which, in all classes, in *every* rank of society, are justly considered of THE FIRST importance; and without which, the opulent can neither enjoy those comforts, which it is in the power of wealth *alone* to bestow; and dispossessed of which, the peasant is unable to pursue his daily occupation,' &c. &c.

This, truly, is poor enough; and more like the style of an advertising quack, than that of a man who pretends to direct the studies of those, who are destined, at some future period, to support the dignity of our art, by their skill and their science. But this, like too many works of the same description, contains nothing that can be called science. This we regret; because we are convinced, that the more it enters into the construction of elementary treatises, the more useful will they prove. The business of a well-regulated education is, to open the avenues to knowledge, to exclude prejudices, to excite curiosity, and to bring a mind into the active scenes of life, ardent and vigorous, acquainted with the relation, importance, and connexions of the different branches of human pursuits, and capable of assigning to every fact, that may be presented to its observation, its proper place, and its due degree of consequence. A plan, however, nearly the reverse of what we have recommended, is

generally pursued, in conducting the inquiries of a great majority of our brethren. The apprentice learns to administer *juleps* and *saline draughts*, and acquires much other *valuable information*, under the guidance of his master; listens to his vague and nonsensical cant with stupid admiration; imbibes all his prejudices, and all his errors; and then repairs to some other school, to fit himself for practice by *walking* the wards of an hospital and hearing the lectures. No advantages, which any medical seminary possesses, can counteract the effects of such a system. A mind, that has never been prepared to receive instruction, can derive little aid from any opportunities, which such a field presents. The course is rapidly finished, and the student retires, as ignorant, and as regardless of many essential parts of his duty, as when he first commenced his career. It would be an useful, but not, perhaps, a very gratifying task, to illustrate these facts, by an appeal to the practice, the writings, and the controversies of medical men. Our limits prevent us from making such an attempt at present; but in the course of our labours we shall always keep these objects in view, because they are the sources from whence all that is either good or bad, in our profession, must proceed.

We do not think that the author is aware of the conclusions to which investigations of this kind may lead. His remarks may prove useful to the raw country youth, who is thrown loose upon this metropolis, at the commencement of his medical campaigns; but they will be so, chiefly by making him acquainted with the routine of instruction, that is generally followed; certainly not by pointing out what is best adapted for securing the advancement of truth and philosophy, and for forming practitioners of the highest class.—We could not help smiling at the directions which he gives for acquiring a knowledge of anatomy. We present some of them, as a specimen of what may be expected in this production.—In the first place, 'it is essentially necessary for every pupil to provide himself with such articles, as are not only requisite for investigating the various parts of the subject to be dissected; but also for keeping his own person, as well as every thing around him, in a state of *perfect cleanliness*.' p. 31. 'The first article to be provided is a *dress*, which consists of an apron and sleeves,' &c. 'The dresses are made of various materials, as, oil-cloth, linen,' &c. 'The implements necessary for dissecting, consist of a small box of knives, scissars, tenacula, and blow pipes,' &c. Next the pupil is recommended to provide himself 'with towels, sponges, soap, and a box, with lock and key,' &c. 'Having procured the necessary articles, (and which are at all times to be had at every respectable surgeon's instrument maker's, ready for use, a list of whom I shall subjoin, see p. 77), he may commence his dissections.'

We certainly did not expect to find an essay, on the importance and utility of the medical profession, occupied with details of this

kind; and when we contrasted the actual state of all dissecting rooms, with the most delicate precautions, which the author advises, for ensuring '*perfect cleanliness*,' we fancied, that we beheld an intrepid anatomist about to be converted into a *petit-maitre*, who would be afraid lest a 'slovenly unhandsome corse' should be brought 'betwixt the wind and his nobility.' Little good is to be expected from a book, the principal parts of which are made up of trifles, such as we have enumerated.

ART. XLIV. *An Essay on Hydrocephalus Acutus, or Dropsy in the Brain.* By John Cheyne, M. D. 8vo. pp. 218. Murray. Printed at Edinburgh.

IN every branch of natural knowledge, it is to be lamented, that we have had too much conjecture and too little observation: but in medicine it must be a subject of peculiar regret, as the result of so erroneous a mode of proceeding comes immediately home to the feelings of every individual. Much mischief, we are persuaded, has arisen from a mistaken fear of considering medicine as an *experimental* science; (though it is obvious, that its true principles could alone be developed, in proportion as facts were multiplied); and, from an indiscreet zeal, which forgets that the æra of making discoveries and recording observations, must necessarily long precede any successful attempts to reduce them to system. Recent examples, however, of a truly philosophical spirit, exerted in the investigation and treatment of disease, are not wanting; and we feel confident that the process of reasoning by induction, the advantage of which has been so extensively felt in the collateral departments of science, will be more generally adopted by medical inquirers, and with equally beneficial results. We are, therefore, always disposed to receive with peculiar pleasure clinical histories of disease, more especially where they have been conducted with so much diligence as Dr. Cheyne has displayed in the discharge of his professional duties. 'These cases are not recollections, nor were they ever in danger of being altered, or even coloured, by any prevailing or favourite doctrine. They were invariably drawn up in the bed-chamber of the patient, and present a faithful account of every symptom and circumstance that attended the disease.' Pref. p. 7.—When we reflect how difficult it is, under the pressure of professional avocations, to keep a continued record of practice, the persevering industry of the author entitles him to praise, and justifies his claim to our attention. We regret, however, that though he professes to have been fully aware, 'that it is the duty of the physician, no less than of a sound philosopher, to be cautious in the admission of hypotheses, industrious

and careful in the collection of materials;' yet, in the progress of his work, he appears to have forgotten the cautionary part of the rule; and in his wish to be full, not to have used sufficient care in the selection of his matter. Our satisfaction also would have been considerably greater, had we met with more simplicity of manner.

The work before us constitutes the third of a series of Essays on the diseases occurring between weaning and puberty, which Dr. Cheyne has in succession submitted to the public. Dropsy in the brain, the subject which he now treats of, is one of acknowledged importance, both from the nature of the malady, and the practical difficulty with which its early detection, as well as its successful management, is uniformly accomplished. The difficulty of giving a distinct, and, at the same time, complete account of the symptoms of hydrocephalus, might, the author thinks, be considerably obviated by adopting a classification, which he announces as not being 'artificial nor arbitrary, but having a foundation in the nature of the disease.' The first class consists of the ordinary form of the disorder, in which the attack is gradual, and the first signs of indisposition are commonly either unnoticed, or not regarded, 'and the disease has made considerable progress, before the illness of the patient is suspected to arise from a disordered condition of the brain.' p. 13.

The second is of a more acute character. 'After the child has been drooping for a short time, which, although it sometimes escapes observation, is generally recollected, there is a sudden change to a fever, attended even from the first with a great degree of pyrexia, with frequent but short irregular remissions, flushing, severe headache, tenderness all over the abdomen, and increased sensibility, with sometimes brilliancy of the eyes.' p. 14. This form most resembles the remittent fever of children; but deeply seated evil may be suspected 'from the frantic screams and complaints of the head and belly, alternating with stupor, or rather lowness,' from the irritability of the stomach, and the dejected expression of the countenance, during the periods of remission.

The third is, in the author's estimation, of rarest occurrence. 'It may be considered as an instance of that conversion of diseases, which arises either from the excess or combination of the symptoms of the original complaint, operating upon a habit favourable to the new disorder, or perhaps from the state of the habit produced by the primary giving rise to the consequential disease.'

This view may be satisfactory to the author, and, if it assist in detecting the disease at its formation, is certainly of importance: but as the first and second classes are evidently modifications of the same state, we deem the division unnecessary. Indeed Dr. Cheyne afterwards remarks, 'I would have it understood, that the distinction which I have made is chiefly applicable to the attack; in the latter stages of the disease there is little diversity in the symptoms.' p. 18.

—For our own part, we think that hydrocephalus acutus may, for the purposes of description, be divided into idiopathic and symptomatic; but in both there is an illimitable scale, from great febrile commotion and urgent topical affection, to the least palpable and most insidious forms of the disease. It is much more material, in a practical light, that we should attend to the constitutional powers of the individual, and the apparent character of the disease, as being connected with considerable vascular excitement of the brain, or the reverse.

With respect to the progress of the complaint, the author very justly observes, that the student will be disappointed, if he expect that the different stages, into which Dr. Whytt divided this disease, will appear in a regular order. We have but seldom witnessed the slow pulse which characterizes the second stage, and, with one exception, it has been then always connected with irregularity, both in the pulsations and in the intermissions; but as there would seem, in well marked cases, to be a foundation for such a division, Dr. Cheyne has proposed one, which is constructed on the state of the sensibility, but which is, in our opinion, equally exceptionable.—He considers 'the first, as the stage of increased sensibility; the second, the stage of decreased sensibility; the third, the paralytic or convulsed stage. —In the first stage, every stimulus produces a sensation more than proportioned to its common effects. There is great aversion to light and to sounds; there is watching, sickness, pain, a quick pulse. In the second stage, the child is not easily roused, his pupil is dilated, his pulse slow, he is lethargic, with often an obstinately costive belly. In the third stage, which may perhaps be considered as a continuation of the second, there is squinting, rolling of the head, raving, stupor, convulsions, with a rapid thready pulse.' p. 25. Now, we well know, that this series of symptoms admits of considerable variation; that these conditions of the sensibility are not uniformly observed; and that convulsions are not confined to the last stage, but frequently usher in the disease, and will occur from every species of irritation, equally as from that under consideration. Might we not denominate these respective states of the brain, cerebral excitement, cerebral torpor, and cerebral irritation? This distinction would at least more immediately bear on the method of treatment, and it nearly coincides with that adopted in the very able 'Outlines,' used at one of the London schools of medicine,* in which we find enumerated 'three distinct stages; first, of irritation; secondly, of oppression; and, thirdly, of ineffectual reaction.'

Though the duration of the disease is uncertain, from a few days to many weeks, yet the result of the author's observation is, on the whole, in favour of the period assigned by Dr. Fothergill, that of its ending within three weeks.

* Guy's Hospital.

'Hydrocephalus is the disease of every season of the year. Were I,' says Dr. C., 'to trust to my own cases, I should say that it prevails most in summer. It is also the disease of every stage of life, perhaps with the exception of old age. Hydrocephalus is, however, more particularly the disease of childhood; and in the middle years between weaning and puberty, I have met most frequent examples of it. It chiefly falls upon the children of families having a strumous taint, at least upon children having all those peculiarities of skin, complexion, and features, which indicate scrofula; and sometimes it attaches itself to particular families;' in which case, Dr. Cheyne is led to think, that it is more easy of cure. The connexion which subsists between the tendency to scrofula, or the actual developement of that diseased condition of the body, and hydrocephalus, is fully established by the concurring testimony of medical men.

With respect to the appearances on dissection, the author says, 'we generally find within the cranium the veins, particularly those of the membranes, on the surface of the brain, and lining of the ventricles, gorged with dark coloured blood; sometimes considerable adhesion between, and thickening of the membranes, and minute and florid vessels on the pia mater. The ventricles we find to contain from two to six ounces of limpid serum; also fluid in small quantity under the tunica arachnoides, both above and at the base of the brain. The substance of the brain is generally soft and blanched, fimbriated, and particularly soft where it forms the ventricles. The substance of the fornix is often like a soft curd. In the abdomen, I have found the intestines inflamed, and constricted from spasm, and the surface of a bright red colour, abounding in minute vessels, and sometimes extensively adhering to the peritoneum. In several dissections, I have found the surface of the liver studded with small white tubercles, not larger than a grain of mustard. The glands of the mesentery are often diseased, as is evinced by their enlargement, and the caseous depositions, which we find in the substance of the glands.' p. 30. He afterwards speaks of having seen the remains of great inflammatory action in the liver, (p. 46); but such appearances we have never yet witnessed.

Hydrocephalus has not unfrequently been confounded with other diseases. The diagnosis between it and the remittent fever of children is confessedly difficult. The author allows, that he has once or twice found, in remittent fever, what might have been called *hydrocephalic* stools, 'a glairy dark green discharge.' For ourselves, we do not think that there is, in the one or the other, so marked a state of the alvine excretion, that we should be authorized in saying, this is a *hydrocephalic stool*, to use the author's phrase, and that is not. We should rather be disposed to rest more upon the general assemblage and concourse of symptoms, upon the character of the delirium, and the peritonæal tenderness, which we think much less com-

mon in hydrocephalus; while the sickness is more distressing, the head droops if not supported, and the pain is much more urgent.

This is admirably pointed out by Dr. Kellie, in the two cases communicated by him to the author; from the first of which we extract the following reports. 'When asked how he is, the invariable answer is, "my head! my head!" and again, on the succeeding day, when asked how he feels his head, he says, "better;" but when otherwise disturbed, as when I was feeling his belly with my hand, he cries out plaintively, "Oh my head!"' p. 140 and 141.—In younger children, there is frequently present a very peculiar spasmodic cough, not unlike crowing, evidently the result of irritation. It is taken notice of by the author in the two instances, where the disease occurred in infants at the breast, and is considered by some, who are familiar with the symptoms of hydrocephalus, as being very characteristic of this affection.—In certain cases of organic affection of the brain, we believe that there is no certain criterion, during life, by which the question can be determined; and in some sympathetic states of this organ, all the symptoms of hydrocephalus have occurred, but no change of structure could be detected, by dissection after death.

The conclusions which the author has drawn, (in p. 44, *et seq.*) respecting the connexion between a disordered condition of the abdominal viscera, particularly the liver, and hydrocephalus, are well worthy of attention; but many more opportunities of observation will be required, to determine whether this be not an accidental coincidence, such as occurs with respect to other organs; or, if the derangement of the hepatic system be found to be commonly present, to ascertain that it is not subsequent and subordinate to the affection of the head.

With regard to the pathology of the disease, Dr. Cheyne supposes that, after a precursory state of excitement, there is increased vascular action, with venous congestion, and consequent effusion; and so far his opinions do not materially differ from those of his predecessor, Dr. Quin, 'who attributes hydrocephalus to a morbid accumulation of the blood in the vessels of the brain, sometimes proceeding to a degree of inflammation, and generally, but not always, producing an extravasation of watery fluid before death.'—There is certainly the appearance of more anatomical precision and refinement, when we are told, 'that in this disease there is produced a venous congestion, in addition to, and probably arising from, the increased arterial action; that the effusion of serous fluid arises from this venous congestion; that this effusion has a tendency to counteract the baleful effects of the increased action, and to retard the fatal termination of the disease; of course, that the effusion into the ventricles is not the cause of the violent symptoms, and that the increased arterial action, though perhaps varied, does not cease when

the congestion and effusion have taken place.' p. 59. But is there not also much useless amplification, and idle conjecture? Indeed, with respect to the fluid effused into the ventricles, Dr. C's. notions appear to us not only perfectly hypothetical, but of dangerous tendency in their relation to practice. That the effusion is the natural consequence of the increased vascular determination, or accumulation, must be granted by all: but few, we believe, will be disposed to say with him, that 'it is the morbid action of the blood vessels *wasting* the brain, and unfitting it for its functions, which destroys the child: and I think it no rash opinion, that death would occur earlier in the disease, did not the fluid exude, and *thus continue to the brain the necessary degree of support from within, which would have been lost by the wasting of the organ;*'—or be ready to conclude, on such premises, that 'effusion is the remedy which nature provides for absorption within the cranium.' Surely Dr. Cheyne must have forgotten, at these moments, that a philosopher should be cautious in the admission of hypotheses. He must have made a gratuitous and erroneous assumption, or we must be counteracting nature, and injuring our patients, when we endeavour, by the mercurial course and external irritants, to promote the removal of this same effusion.

The author next discusses the opinions of Dr. Cullen, Dr. Rush, and Dr. Darwin, which he considers objectionable, and concludes, that hydrocephalus consists in 'a diseased action of a peculiar kind. What this is we can as little explain, as we can the nature of the scrofulous or syphilitic action.' p. 82. We really were disappointed at so unsatisfactory a deduction from the large store of facts which Dr. Cheyne has brought together. We had hoped, that his extensive opportunities of observation (more than 100 cases having come under his attendance) would have led to something less obscure.

'Non fumum ex fulgore, sed ex fumo dare lucem.'

The recapitulation of some of the characteristic circumstances of hydrocephalus, and what the author offers as anticipations, are worthy of attention; they will be found to be of a mixed character; some the result of observation, others sufficiently speculative.

In his plan of treatment, the author recommends those remedies which, in our opinion, are best calculated to combat successfully this too fatal disease; but his indications appear to us redundant. They are—

'I. To remove from the constitution every irritation, which either may have given rise to, or may have contributed, by morbid sympathy, to prolong the diseased action in the brain.

'II. To subdue the hydrocephalic action; first, by diminishing the increased activity of the circulation within the head; secondly, by substituting a new action.

'III. To alleviate pain and sickness, if very urgent.

'IV. To accept every assistance offered by counter-irritations.

'V. To support and renew the strength; to support it more particularly under any critical discharge.'*

The author points out the benefit of freely administering active purgatives. Of the propriety of this practice, in the early stages, there can be no doubt; but the exhibition of the more drastic kinds, as the disease advances, will require considerable limitation. He then gives some judicious directions with respect to local and general bleedings; and under this head remarks, that venesection favours the operation of mercurials on the system. He also says, 'I have applied leeches and blisters to the region of the liver, to prepare the way for, and co-operate with the purgative medicines, (which are generally of the cholagogue class), in restoring this viscus to a sound performance of its functions; and I have imagined that benefit was derived from these applications.'—The succeeding observations on the importance of the mercurial course, the employment of digitalis, and the advantages of blistering, will be found deserving attention. We have seen cold applications to the head, at the commencement of the disease, decidedly of use; and experience has shewn them to be highly beneficial in the delirium of fevers, which frequently is connected with increased vascular determination to the brain: under such circumstances alone should we think the practice safe.

In the remarks which Dr. Cheyne has made with regard to supporting the strength of the patient, there is room, we think, for serious misapprehension. When the appetite is voracious, we ought to be much on our guard, lest the sudden introduction of food may aggravate, instead of lessening, the debility. We cannot agree with the author in supposing that the patient 'dies from the debility, and not from the paralytic state of the brain.'

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* Might they not be simplified thus:

1. To relieve the head,
   - *a.* directly, by bleeding, general or local, or both, as circumstances might require; by blisters, and cold applications.
   - *b.* indirectly, by acting on the bowels, particularly on the vessels of the liver, and by the use of such medicines as diminish the force of circulation by their sedative influence, or determine to some other organ, as the kidneys, or skin.
2. To induce a new action in the system,
   - *a.* generally, by mercurials;
   - *b.* locally, by perpetual blisters, and other irritants.

Or if we follow the distinction of stages:

1. To lessen inflammatory excitement of the brain by evacuants.
2. To remove the torpor by counter-irritations, and determinations of blood.
3. To prevent the effects of irritation, by guarding against every source of it, particularly by endeavouring to produce the absorption of the serous effusion on the surface of the brain, or into the ventricles.

The observations on the prevention of the disease are fewer, and less important, than we expected. The cases, however, at the end of the volume, will excite in the reader considerable interest. We regret that they are all of apparently recent occurrence, the most remote, with one exception, bearing date 12th May, 1804. It would have been satisfactory to have traced the author's progress, and to have been furnished with the documents, as to any variations which may have occurred in his views of the subject. In a practical point, it would also have been instructive. With respect to blisters, he with much candour acknowledges, that he had been biassed by a preconceived opinion of their inexpediency. 'Until of late, I *imagined* the efficacy of blisters in this disease to be rather questionable, and in many cases I declined prescribing them: but lately, in several cases, I have *witnessed* a remarkable mitigation of the symptoms, after the application of a blister.' p. 106.—A series of tables (had Dr. Cheyne's leisure permitted him to analyse the contents of his case book) something similar to that which Dr. Haygarth has given, in his clinical history of rheumatism, would have constituted a very important addition to what the author has performed in this essay.—Before we take leave, we request, for our own gratification, and we are sure that of the public, who, though they pardon, are not insensible to errors of style, that the author will in future avoid such sesquipedalian terms, as 'strangurious affection, p. 25; propriety of *collocation*, p. 68; *febriculose*, p. 87; declination of disease, p. 107; *cataleptically* fixed, p. 157; *hydrocephalic stools*,' passim;—that he will be content to convey simple ideas in appropriate language, and not describe increased sensibility, as a state 'in which every stimulus produces a sensation, more than proportioned to its common effects,' p. 25;—and that he will kindly allow us to discover for ourselves such truths as the following; 'that if we do not use *efficient* doses of digitalis, we are undoubtedly trifling,' p. 102;—and that 'this is a disease, in which clinical experiments, prudently made, are not only allowable, but highly to be commended,' p. 105. When, we would ask Dr. Cheyne, can the exhibition of inefficient doses be otherwise than trifling, whether it be of digitalis, or any other remedy? or what disease is there so well known or so unimportant, that the prudent institution of fresh experiments can ever cease to be the duty of the physician?

ART. XLV. *A Treatise on Inflammation, and other Diseases of the Liver, commonly called Bilious: including the Synochus Biliosa; Cholera Morbus; Torpor; Schirrous; Biliary Calculi; which is preceded by a short Description of the Structure of the Liver, and the different phisiological opinions respecting the use of the Bile. Lastly, is added a monthly List of Diseases, from the first of June, 1806, to the 30th of June, 1807, with the State of the Weather and Thermometer.* By W. White, Member of the Royal College of Surgeons, London; Surgeon, &c. to the Bath City Dispensary and Asylum. 8vo. pp. 149. Cadell & Davis. Printed at Bath.

WITHOUT hastily judging an author, we are always led to draw some inferences, respecting the nature of his work, from what we read in the few first pages. We sometimes even proceed further, and speculate on the general character and extent of his intellectual attainments, from the manner in which he makes his approaches to the subject that he intends to discuss. When dedications were more in vogue than they are at present, they generally opened a field of a different description, by disclosing some part of the moral feelings of the writer. From Mr. White's dedication, for instance, to the Managers of the Bath City Dispensary and Asylum, we have imbibed high notions of his meekness, and of the humility of his opinions concerning his talents for communicating instruction. From the preface and the other parts of his work, we have concluded, that he cannot possibly possess too much of these most estimable qualities, and that no man should be more entirely divested of every thing, which savours of 'the pride of talents,' than our author.

Being attached to a public institution, the author's opportunities for observations have been extensive. He flatters himself that he has profited by these opportunities, that his method of arrangement will appear simple to the young practitioner, and afford him some assistance in discriminating the various morbid affections of the liver.* Our observations shall be directed to these points, in order that we may ascertain whether the author's expectations are well founded, and what share of praise ought to be given to his labours.

He tells us in his preface, that he has availed himself of every valuable '*hint*, from the most eminent writers, which he has not failed to acknowledge.' p. 7. But we must observe, that the *hints*, to which he alludes, are rather more fully expressed, than gentle intimations of that kind generally are. This volume, for instance, contains 149 pages; above *sixty* of these pages are filled with extracts from works, which have been already printed; about *twenty-*

* Introduction, p. 8.

five more are occupied with a list of diseases, and a most defective and imperfect meteorological table; so that there will remain between fifty and sixty, which are printed without inverted commas, and which, we presume, will therefore be claimed by Mr. White, as the offspring of his own *original* investigations. In short, all that is written on the physiological part, is made up of *hints*, which appear in the form of continued extracts, of three, four, five, or more pages, from the works of some of his predecessors; and, indeed, if we except the *hints* (some of which are trite enough), there is little or no information to be obtained; for the matter, interwoven by the author, is comparatively of little value.

Having completed his compilation from Coe, Saunders, and one or two other writers, Mr. White proceeds to give the following, as the arrangement of the diseases of the liver, which he thinks so 'simple,' and so well calculated to assist 'the young practitioner.'

'Hepatitis, or Sthenic Inflammation.
Hepatitis Chronicus (*Chronica*).
Synochus Biliosa.
Cholera Morbus.
Periodical Cholera.
Remarks on the indiscriminate use of purgatives.
Torpor, or Paralysis.
Schirrous (*Scirrhus*).
Biliary Calculi.' p. 24.

These are what the author terms, 'the original derangements of the liver.' Jaundice, he thinks, does not depend upon a specific morbid action of that organ; but is merely a symptomatic affection. We deem it unnecessary to enlarge upon this classification. We would, however, beg leave simply to ask the author, upon what principle 'remarks on the indiscriminate use of purgatives,' appear in so conspicuous a situation, in his enumeration of the diseases of the liver?

Mr. White introduces his discussions on Hepatitis, with 'remarks on the term *inflammation*, and also on the remote and proximate causes.' p. 25.—The terms, that we have just quoted, are among the most vague and indefinite that are to be found in medicine. With the use that is made of the latter, in particular, we have the misfortune still to be daily offended. The symptoms, progress, and varieties of inflammation, are as numerous, as are the parts of the body which it attacks; yet, with this palpable fact constantly forced upon our attention, we find men endeavouring to affix one character, which shall include all these varieties; disputing about an existence, which is entirely imaginary;—and speaking, and writing about this creation of their own, with a great degree of obstinacy and absurdity. What is true of inflammation, when it occupies the cellular substance, is not so, when it is confined to a bone, a muscle, a tendon, a gland, the different *kind* of membranes, &c.; yet it is almost

exclusively from the first of these, that all our descriptions of the appearances, symptoms, and terminations of inflammation, are drawn; and the reasoning, which may be applicable to this individual species, has been most unphilosophically extended, so as to embrace all the others.

The description of acute and chronic Hepatitis, as well as the directions for the treatment of these disorders, is comprised within a very small compass, if we strip it of the quotations from Drs. Cullen, Saunders, and Pemberton; and we learn nothing more from Mr. White's observations on the cure, than the general necessity of the antiphlogistic plan, in the acute form of the disorder; and the utility of calomel, in the chronic form. To these are subjoined some such profound suggestions, as the following: that 'if the symptoms of inflammation should run high, there will be danger of suppuration in a few days, unless appropriate means are used,' &c.; and a formula is added, for a *saline* draught.

Not content, however, with filling his sheets with what has already been printed by other writers, he proceeds to occupy 36 pages more, by reprinting a work of his own. For he informs us, that his observations concerning the *synochus biliosa*, are transcribed from a treatise, which he published some years ago on that disorder. The description of this affection, though it has thus had the advantage of being revised and reprinted, is extremely unsatisfactory. From the preface, we had reason to conclude, that 'the synochus biliosa' had not been 'particularly noticed' in any 'specific treatise on diseases of the liver. This circumstance alone is,' in the author's 'opinion, a sufficient apology for the present undertaking; for certainly the disorder forms an important link in the chain of hepatic diseases.' (Preface, p. 6). We beg leave to contrast this statement with what follows, in p. 87 and 71. 'Although the cholera morbus and synochus biliosa are distinctly arranged in the annexed list of diseases; yet I am very much inclined to believe, that the former only differed from the latter, merely as it respected its violent manner of attack, and short duration, and not from any essential difference in the nature of the morbid action, or remote cause.'—'I am inclined to think, from the coincidence of the leading symptoms of the complaint, (*i. e.* the synochus biliosa), and the morbid similarity exhibited on dissection, that this fever is only a diminutive species of the bilious or yellow fever, which occurs in hot climates.'

It is needless, after these palpable contradictions, to pay any regard to what the author says, either 'respecting the symptoms—type—remote and proximate causes—and method of cure.' p. 51. We cannot listen to the testimony of any man, who writes in this manner, because he evinces a total want of that discriminating faculty, which alone confers a permanent value upon the observations of the medical practitioner.

We must admit, however, that there are a few practical remarks, which are worthy of attention, both in respect to the pathology and the practice in this disease; but they are like the *hints* before noticed, generally found between inverted commas; and the names of Dr. Pearson, formerly of Birmingham, Dr. Blane, Dr. Chisholm, Dr. Huxham, &c. are annexed to them. Mr. White's quotations, relative to the treatment of synochus biliosa, chiefly bear upon the necessity of free purgation, in the incipient stage of the disease; and he cites several authorities to prove, that if this evacuation is neglected, or too sparingly employed at that period, the fever is liable to become severe, and the morbid derangement of the biliary system more obvious and urgent.

The other diseases, before enumerated, are treated in a similar manner, *i. e.* briefly and superficially, and copiously illustrated by authorities; or, rather, the authorities constitute the principal information that is brought forward.

The only point upon which we can conscientiously award the smallest praise, and that of a negative kind, to this compilation, is, that the practical opinions here collected are good; and therefore the volume will do no harm, although it adds nothing to the stock of information. At the same time, we are bound to express our most decided disapprobation of this sort of book-manufacture;—of this imposition upon the public, in retailing out piece-meal the observations of popular writers, whose works are in every one's hands, under the pretence of giving the result of personal experience, at a public institution. The closet, and not the bed-side of the sick, gave birth to this 'thing of shreds and patches;' it was by the labour of the hand, sometimes wielding the pen, often the scissars, and not by the exertions of the head, that its contents were put together. The author of such a work is a mere scene-shifter on the stage of physic; who thrusts the productions of others before the public eye, and then hugs himself on the important share which he takes in the performance of the drama. But we would hint to the author, that the task of real observation is most difficult: it is not enough that a man have eyes to see, and ears to hear, and a dispensary for the collection of patients; although men in general conceive that these circumstances are sufficient to enable them to state *facts*: but to ascertain facts, without blundering or misconception, and without distorting them through the mist of prejudice and hypothesis, to mark their points of resemblance and distinction with accuracy, and to detail the whole with faithfulness and precision, requires an assemblage of knowledge, industry, attention, and talents, which fall to the lot of few. A Sydenham is seen but once in an age; and a Home, a Fothergill, and a Lind, are not practitioners of every day's birth. Of Mr. White, however, it must be said, in extenuation of his vain pretensions to practical observation, that they

extend not beyond his dedication, and we believe are not afterwards mentioned.

Before we take leave, we would ask the author, upon what authority he writes *phisiology*, a *schirrous* (noun substantive), *parenchema*, &c. which we conceive to be inconsistent both with usage and etymology.

ART. XLVI. *Cases of Diabetes, Consumption, &c. with Observations on the History and Treatment of Disease in general.* By Robert Watt, Member of the Faculty of Physicians and Surgeons, Glasgow. 8vo. pp. 328. Murray. Printed at Paisley.

THE author of this work has comprised within the limits of a small volume a great diversity of subjects, important in themselves and in their relations. His observations on them are distinguished by a bold and ingenuous spirit of inquiry, by an occasional originality of thought, and by an appearance of great zeal for the improvement of medical practice. But many of his deductions, which are directly opposed to the general opinion, seem to us to be too hastily collected from a limited number of facts; and his reasonings, though ingenious, will therefore be deemed, in many instances, inconclusive, if not extremely fanciful. The propriety of the treatment, which he recommends, can alone be determined by future and more enlarged experience. In the mean time, we shall lay before our readers an abstract of the facts and opinions stated by Mr. Watt; candidly acknowledging, that we have not yet ventured to commit ourselves to his guidance in practice; and that, before we do so, we hope to receive farther evidence of his success, in this new and adventurous route.

Diabetes occupies the first and principal part of the work, which commences with five cases of that disorder, detailed at considerable length, and interspersed with such reflections, as occurred to Mr. Watt during the progress of the symptoms. Defective assimilation, and the substitution of saccharine matter for that peculiar product of the urinary secretion, the urea, constitute the essential characters of diabetes: the other deviations from the healthy condition, though highly important changes in themselves, and in the information which they communicate to the medical inquirer, are but subordinate signs of the constitutional and local derangement. The attention, however, of professional men has of late years been so frequently called to this subject, that we do not think it necessary to enter into a history of the disease. It will be sufficient to say, that the writers who have successively noticed it, from the time of Are-

tæus, have still left much to be ascertained; and that, even at the present moment, a very interesting question remains undecided: for our author and Dr. Bardsley, who, in his late medical Reports, has given a succinct account of diabetes,* are at variance respecting the proportion which the urine bears to the ingesta; the latter maintaining, after a very accurate investigation, that this excretion exceeds what is taken, both solids and fluids; and the former, that the reputed excess of the egesta may, in all cases, be traced to some source of fallacy.

Our author's labours, however, have been principally directed to the investigation of that point, which must ever be the leading object of our inquiries, viz. a rational and successful plan of treatment.

It must be well known to our readers, that, after many ineffectual trials with tonic and other remedies, an attempt has been made to cure diabetes, upon the principle of cutting off the supply of saccharine elements, by confining the patient strictly to an animal diet, and by the additional employment of alkalescent medicines, to diminish the appetite, and correct the process of digestion. The hint was first given by Dr. Home, who says, 'as the urine appeared too little animalized, I endeavoured to promote the animal process by septics;'† but for the full investigation of the subject we are indebted to Dr. Rollo. Sydenham indeed has recommended an animal diet, but it was with a view to strengthen the vascular system. He says, with respect to a diabetic patient, 'Vescatur cibis ἐυπέπτοις, viz. carne vitulinâ, vervecina, &c. abstineat ab esu olerum et fructuum qualicunque.'—Notwithstanding the benefit which many experienced from this plan of treatment, the difficulty of persuading patients to adhere to it was universally acknowledged, and doubts arose with respect to the ultimate advantage of the method: for Dr. Cleghorn early pointed out 'the great danger of inflammation, after the cure of diabetes by animal food;' and his observation was confirmed by the practice of other physicians.

Mr. Watt, being struck with the occurrence of a slight spitting of blood, and recollecting the relief, which Capt. Meredith was stated to have experienced, on one occasion, from the abstraction of blood,‡ was induced to have recourse to blood-letting, in the second case which he has related; and the advantages, which he gained, led him to persevere in a mode of treatment, the developement of which constitutes the great novelty, and the important feature of his work. —After undergoing six successive full bleedings, we find that the patient, (who had lost, from the 4th to the 16th of September, 108

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* See our Review of Bardsley's Reports.

† See Home's Clinical Experiments, p. 325.

‡ See Rollo on Diabetes.

ounces of blood), was completely restored to health. We shall quote the author's concluding observations, respecting the happy result of such extraordinary practice; premising, that the changes in the blood, to which he alludes, were its passage from a state, in which the crassamentum was dark and devoid of tenacity, to the condition in which we witness it, when drawn from a person labouring under a disease of high inflammatory action; and that 'the veins, which were at first smaller than usual, became more and more turgid, and the blood flowed with more force every successive bleeding.'—'The effects of this practice on the general system were no less remarkable, than on the blood. Even the first bleeding produced a degree of hilarity, to which, for many weeks, he had been a total stranger. After the third, the pristine vigour of his mind was completely restored, and his feelings rendered more comfortable. After the fourth, the pulse rose to about 80, became firm and regular, and some degree of perspiration appeared on different parts of the body. Still, however, there was no very remarkable change produced on the urinary discharge. After the fourth, there was evidently a relapse. The fifth seemed to act like a charm. The recovery after this was instantaneous and striking. The painful sensations in his bowels left him; the powers of virility returned; the gums became sound; the skin soft and perspirable; the saliva, the urine, and the alvine discharge, natural; in six days he returned to his work; in two months he was restored to his original strength.' p. 60.—In the next patient, a sedentary student at Glasgow, 23 years of age, of a thin, slender make, middle size, and dark complexion, who had been long troubled with extreme acidity of stomach, and other dyspeptic symptoms, when deprived of exercise, the same repetition of blood-letting (till the aggregate loss amounted to 154 ounces of blood) was pursued, and with similar success. This case did not exhibit all the symptoms, which characterize diabetes mellitus. The extreme debility, lassitude, and languor, the lowness of spirits, the emaciation, the spongy gums, the hide-bound skin, the pain in the region of the kidneys, the swelled orifice of the urethra, the frequent micturition, and the small feeble pulse, were present, as in that disease; but the urine did not exceed 6 or 8 pints, was insipid and destitute of smell, the thirst was moderate, and the skin not very dry. In the course of the disease, however, the extract, obtained by evaporating the urine, tasted like brown sugar mixed with common salt, 'a sensible sweetness being left in the mouth, after the saline taste had subsided.' These symptoms were on the increase; the patient was unable to sit up many hours, was losing weight at the rate of nearly a pound in 3 days; and his pulse, which was at 84, 'was not only so weak, that it could scarcely be counted, but also intermitted at least twice or thrice every minute,'—when 16 ounces of blood were first drawn from the arm. He bore the operation well:

'about a quarter of an hour after, the pulse was 72, weak, but did not intermit.' Sixteen or eighteen ounces of blood were taken away daily, for several days, during which the pulse became stronger, and ceased to intermit; and the blood drawn became more and more tenacious, gradually augmenting its buffy crust, and the tenacity of its coagulum. The patient ultimately recovered, and returned to his studies. Dr. Cleghorn's testimony, we may add, to the truth of Mr. W's. statements, as far as he had witnessed the facts, is subjoined.

It would be needless to proceed through the other cases in which this remedy was employed, as the details and results are nearly alike. It is impossible for us to determine the comparative safety and success of such measures, in the cases which occur in this part of the kingdom; but from what we have observed, with respect to depletion in inflammatory diseases, we are disposed to think that a less sanguinary practice must be followed, than has been adopted with respect to our northern neighbours. Nor is it our intention to oppose the arguments of preceding writers to those of our author, on a question which can only be decided by experience; prejudice having been as strong in favour of the lancet, at different periods, as against its employment, we shall only remark, that Sydenham, who was not afaid of this mode of depletion, has recorded a singular observation on this head. 'Nonnunquam accidit, etsi perquam raro, ut senes, qui diu hoc morbo' (febre intermittente) 'antea laborârunt, ac interea venæsectionibus et catharticis imperite fuerint mulctati, in diabetem incidant, etiam febre jam perfecte fugata.'—We have heard the animal diet highly extolled, and then discredited; and we have yet to learn, what may be the ultimate effect of such profuse and repeated evacuations on the powers of the constitution: in the mean time, in a matter of such vital importance, we must endeavour, by candid inquiry and faithful observation, to avoid the difficulties, which are opposed to our progress, in quest of professional experience, by bold enthusiasm, as well as by timid indifference. The letter from Dr. Cleghorn directs our author's attention to a very important inquiry, viz. the fixing a criterion, which might enable us to ascertain when we ought to take away blood, in spite of apparent debility, and how far the evacuation might be carried in such a case, or what is the evidence of its having been carried far enough. We wish that we could, from the author's practical investigation of the subject, have been enabled to draw a satisfactory rule.

In the succeeding sections on physiology, pathology, and practice, we find many important remarks, with a fuller display of the author's peculiar opinions respecting the nature and treatment of disease, more particularly of a chronic kind; indeed we were surprised to find, that those peculiarities of practice and of reasoning, which had seemed to us to spring out of the facts, as they occurred in the

cases detailed, were, in truth, but parts of a comprehensive pathological hypothesis, which he farther exemplifies in the sequel, by an application to consumption, chorea, colic, and several other chronic diseases. We would willingly give our readers a general notion of this hypothesis: we are not sure, however, that we understand it; and our limits will not admit of a very ample view of it. The following is the best outline we can collect:

It is a very short time since an intelligent writer laid down an axiom, that all general affections of the system originate in some local disorder:* Mr. Watt maintains the very reverse of this proposition, that local disease seldom occurs, 'but as the consequence of disease in the general habit.' He details a long catalogue of symptoms, which are common, to a greater or less extent, in all chronic diseases, and which correspond with the hysteria of Mandeville, the English malady of Cheyne, the spleen and vapours of Robinson, the febricula of Manningham, the nervous diseases of Perry and Whytt, the chronic weakness of Withers, and the nervous temperament of Trotter. These he seems to consider as symptoms of '*reaction*,' which term implies the same notion, as the *vis medicatrix naturæ* of the older authors. The following passages will afford some idea of his theory:

'The division of diseases into acute and chronic ought to be carefully attended to. In the one instance, it is the business of the practitioner to excite and aid reaction; in the other, to moderate and direct its course; in both, to see that the end be fully accomplished, before the restorative process is relinquished.—In some, the morbid state of the body no sooner occurs, than reaction commences; in others, it is only after a long train of disagreeable feelings, that any thing like a serious attempt takes place. In some instances, the business is accomplished at once; in others, it can only be finished by repeated efforts. In one, the restoration goes on without much pain, or any serious local affection; in another, it no sooner commences, than some particular part of the body is threatened with destruction. It is this last species of disease, which has laid the foundation for nosology, and occupied, almost exclusively, the attention of medical men. It has led them to neglect, or treat as imaginary, every symptom, which could not be distinctly referred to some particular part of the body. Their whole attention was directed to one object; fortunately, however, the evacuations necessary to relieve that particular part, contributed to the relief of the whole system.' p. 211, *et seq.*

The following statement is, perhaps, more explicit:

'If the system possess sufficient vigour, the reaction goes on to a proper crisis, that is, till the blood be restored, and become the natural stimulus of the nervous system, the proper food for the excretories, and for the vessels which repair the solids. In place of fever, the balance is often restored by a critical evacuation. If the superfluous matter take to the intestines, it produces diarrhœa; if to the kidneys, diabetes; if to the uterus, menorrha-

* Clutterbuck on Fever, 1807.

gia; if to the cutaneous exhalents, profuse perspiration. All these evacuations to a certain extent are salutary. They often prevent fever, shorten its duration, or render it more mild. If the reaction fail to produce a salutary crisis, the system falls back, collects new vigour, and resumes the conflict, as in intermittent fever and other periodical diseases. In other instances, such as hypochondriasis, it repeats the same thing over again, or tries other means of relief, and is thus said to counterfeit every disease. That is, it employs many efforts, to throw off the incumbrance; but is generally unequal to the task. After a longer or shorter struggle, a confirmed phthisis, diabetes, diarrhœa, dropsy, or some other disease, terminates the patient's sufferings.' p. 208.

'The art of medicine,' he says, in a subsequent page, 'consists in conducting the disease before us to a salutary crisis; or in exchanging it for another, which we conceive to be more manageable.' p. 223.

This latter notion approximates to the hints thrown out by Dr. Ferriar, in his essay on the 'Conversion of Diseases;'* and the preceding extracts may appear to be but a new edition of the ancient doctrines of a struggle between the disease and the constitution, changing the humoural doctrine of concoction, into a balance of the functions. In order to shew the foundation of this doctrine, the author points out several reciprocities of function, which exist in the animal economy; and, first, that of respiration and assimilation. 'Two things,' he observes, 'appear to be essentially necessary to the existence of every animal—a supply of food, and a supply of air. All are provided with a set of lacteals, calculated to absorb and digest their aliments; and something, which performs the office of lungs.'—Chyle is the product of digestion; but chyle is not blood. This important change is accomplished by the organs of respiration. —The same order exists in the vegetable kingdom. The roots absorb, and digest the aliment; the leaves convert it into the peculiar juice of the plant, the ascending sap is nearly the same in all.—This is well illustrated by the practice of ingrafting; from which it is evident, that it is the top, and not the roots, which gives the peculiar character to the plant.—In the animal economy, in like manner, the lungs finish what the digestive organs have begun. The lungs perform a double office; they assimilate the new materials, and preserve the blood in a healthy state.—Every organ is put in motion by the stimulus of the matter it conveys. Stimuli are of two kinds; the stimulus of bulk common to all, and the peculiar stimulus of the matter, which belongs to each individual organ; as the intestines are stimulated by the aliment, and the left ventricle of the heart by the aërated blood, the right ventricle by blood of an opposite property.—'A similar reciprocity exists between the nervous system and the sanguiferous. The brain and nerves cease to act, if deprived of healthy blood; the heart and arteries, if deprived of nervous

* Medical Histories and Reflections, vol. ii.

sensibility. The blood supplies energy to the nervous system, the nervous system supplies excitability to the heart and arteries, and food and air give stimuli to the blood: the former, the stimulus of bulk; the latter, the stimulus peculiar to that fluid.'—Each secreting organ is compared to a stomach, which receives food from the blood, digests it, and throws off a peculiar substance. If the blood be healthy, it is their proper stimulus; and if they perform their functions well, they assist in purifying the blood, and in preserving the balance between the lacteals and lungs.

In plants, the roots and leaves bear an exact proportion to each other, the leaves being augmented or diminished according to the barrenness or fertility of the soil, *i. e.* according to the greater or smaller quantity of nourishment. But the extent of the lungs cannot so vary in animals. 'This apparent defect is made up by various outlets. The vessels which open into the lower part of the intestines, the kidneys, and the cutaneous exhalents, are the principal means employed, for preserving a due balance between the two systems; in other words, for preserving the health of animals. It must be remarked, too, that though no augmentation in the extent of the lungs can take place, their action is often quickened, so as to do more work in a given time.'

'The loss of balance between the digestive and assimilative organs may be produced in two ways. The lungs may be impaired in their action, while the lacteals go on in their former course; or the action of the lacteals may be increased, by a morbid irritability in themselves, or by some preternatural stimulus which they convey; in either case, the equilibrium between the two systems is destroyed, and disease produced.'

If the foliage of a plant is destroyed to a considerable extent, the author remarks, a sickly and declining state of the system becomes immediately obvious. 'The same observations apply with equal force in the animal economy. We see every day persons taking great quantities of food, and yet their bodies are rapidly wasting away; or their debility increasing in proportion as they eat. Food may be received into the stomach, and be taken up by the lacteals, and yet be of no advantage to the animal. If there be more chyle than the lungs can assimilate, it only remains an incumbrance on the system, or is discharged by one or other of the excretories.' The two great causes of disease, are, in the author's opinion, 1. cold, or any other means which can retard the circulation; 2. an inequality of action between the lacteals and lungs. Disease is generally begun by the latter, and protracted by the former.

From this imperfect sketch of the author's opinions, the reader will perceive, that they are marked by considerable ingenuity and fancy; and that they unfold some hints at a just physiology and pathology, which the present state of our knowledge has suggested. We have not room to follow Mr. Watt through his practical application of them to diet, evacuations, mercury, tonics, &c.; under

each of which heads, a good deal of observation is evinced, and much interesting matter is comprehended in a small compass. We cannot, indeed, pretend to coincide with him in his speculations respecting depletion, to the extent to which he has pushed them; although we are satisfied that the stimulating system of Brown has been carried to an unwarrantable length in chronic diseases, and that the fear of evacuation, especially by blood-letting, has also been encouraged to a pernicious extreme. Mr. Watt's speculations, however, seem to us to verge upon the opposite extreme, and to lead to a practice, to which the mind can only be brought to accede, by slow degrees, and by the contemplation of a long series of well authenticated facts.

Whatever, therefore, may be thought of the author's reasonings, we trust that the facts, which he has brought forward, will be received with that spirit, which, while it disclaims the undue influence of preconceived opinions, is still not unmindful of the just authority of previous experience.

In the illustrative cases, which are subjoined, of asthma, cholera, colic, consumption, chorea, and plethora, Mr. Watt inculcates the necessity of attending to the early signs of disease, as indicating an interruption in the balance of the circulating and pulmonary systems. We here find many assertions, with respect to the operation and efficacy of remedies, to which our views of these subjects would not allow us to subscribe; we must particularly express our apprehensions, that mercury will not prove so safe and important an addition to abstinence and depletion, in the cure of consumption and other disorders, as the author would lead us to expect.

The execution of the work is unequal. Several very trite observations assume an importance, to which they are not entitled: here and there we meet with errors, which we presume could not have appeared in print, had the author's performance been submitted to the revisal of some literary friend; such as the expressions, '*they put over* the summer tolerably well,'—'felt *agreeable*'—'the rest of the crassamentum is as *black as pitch, and quite rotten*:' and we are unable to guess, by what authority the term 'catamenia' is uniformly made use of in the singular number. Where, however, there is so much interesting matter, we are not solicitous to point out defects of style. And we trust that the attention, which will necessarily be excited by this very important publication, will, ere long, enable Mr. Watt to give it such corrections, as his further experience and reflection shall dictate.

ART. XLVII. *A Vindication of the Opinions delivered in Evidence by the Medical Witnesses for the Crown, on a late Trial at Lancaster, for Murder.* 8vo. pp. 88. Murray, &c. Printed at Liverpool.

ART. XLVIII. *Remarks on a late Publication, entitled 'A Vindication of the Opinions delivered in Evidence by the Medical Witnesses for the Crown, on a late Trial at Lancaster.'* By James Carson, M. D. 8vo. pp. 136. Murray, &c. Printed at Liverpool.

IT seldom happens, that we have to consider a more serious question, than that which forms the subject of the present pamphlets; or that we are called upon, in our critical capacity, to give judgment in a case which more nearly affects the honour, the reputation, and, we may add, the fortunes of the principal parties concerned. As the occasion, therefore, is solemn, and the responsibility attaching to our decision great, we think it proper to premise an explicit declaration, that we entered upon the inquiry, wholly free from those prejudices which it might have been difficult to guard against, had our situation been less remote from the scene of contest, and fully prepared and resolved to render impartial justice, wherever the blame might be found to lie,—however great the delinquency on either side might be proved to be. So high a sense, even, do we entertain of the importance of our duties, that if, in the course of the examination, we had perceived, in our minds, the least undue bias, the least tendency to swerve from the proper line of conduct, we should have quitted the judgment-seat, and quietly abandoned the cause to the great tribunal of public opinion,—the tribunal by which we ourselves must be judged, and by whose verdict we must either stand or fall.

The history of the very extraordinary trial which took place at the Lancaster Assizes, in the month of September last, must be still fresh in the memory of most persons; and few of our readers can require to be informed of the unexpected turn which was given to the proceedings by the testimony of an individual, who came forward on the occasion, and contradicted, in a very pointed manner, almost every assertion, and every opinion, that had been advanced by the *four* medical witnesses for the crown. The latter gentlemen, finding their evidence invalidated, and their character for professional learning in some degree attacked, were naturally anxious, after the trial, to lay before the public a more comprehensive statement of their opinions and of the grounds of their belief, than it was possible to have delivered in a court of justice; and Dr. Carson, (the individual above alluded to), equally jealous of his reputation, avowed his intention of publishing a similar defence. Such were the motives that

gave birth to the publications of which we are about to give some account.—As, in order to have a clear idea of the points at issue between the two contending parties, it is necessary to pass under review the leading circumstances of the case, and as the 'Vindication,' which appears to be the joint production of Drs. Gerrard, Rutter, and Bostock, and Mr. Hay, contains some particulars not to be found in the printed Report of the trial, we shall give a concise abstract of the 'narrative' which it presents, at least as far as relates to the medical evidence. Having made this statement, we shall then consider the arguments by which Dr. Carson has endeavoured to confute the opinions of his adversaries, and determine, to the best of our ability, on which side the truth preponderates, or the greater probability rests.

Miss Burns, the lady whose case gave rise to the present dispute, died, as was proved before the Coroner of Liverpool, under very suspicious circumstances. For some time previous to her death, she had been observed to increase in bulk, and seemed to be in a state of pregnancy. On Wednesday the 23d of March, she became suddenly ill, and was seized with violent vomiting, accompanied by thirst, violent pains in her body, and by a retention of urine.—These symptoms continued, without intermission, for nearly forty-eight hours, or until Friday morning, the 25th, when they ceased, and were succeeded by diarrhœa, which lasted till about eleven o'clock in the forenoon of that day, when she died. It is worthy of remark, that, during all this time, Miss B., though her disorder was so severe, received no medical assistance; but was waited on constantly, by day and by night, by a Mr. Angus, a merchant of Liverpool, the same person who was afterwards indicted for her wilful murder. On the examination of her body, two days after her death, by the medical gentlemen whose names we have before given, no appearance of external violence, or of commencing putrefaction, could be perceived; but the nails of the fingers were of a bluish colour, and the veins of the abdomen seemed much enlarged. On opening the abdomen, a considerable quantity of a thin yellow fluid was found effused into that cavity, and marks of inflammation were seen on the external coat of different portions of the small intestines; the external coat of part of the smaller curvature of the stomach was inflamed, and a similar appearance was observed on a small portion of the anterior edge of the liver. When the stomach was raised from its situation, it was discovered, 'that for greatly more than the extent of a hand's breadth in the anterior and inferior part of the large curvature, the texture of its coats was totally destroyed;' and that there was a small opening in this part, through which a dark olive-coloured fluid issued. The *uterus* was found to be enlarged so much as to be capable of containing nearly a quart of fluid; the walls were thickened, and the whole internal surface was bloody. The *os uteri* was greatly dilated; and near the *fundus*,

'there was a well-defined circular space, of a deeper colour than the rest of the internal surface, and about four inches and a half in diameter. This space was rough and rugged, and a small fragment of what appeared to be the *placenta* still adhered to it; and the blood-vessels opening upon it, were distinctly visible, and as large as a crow-quill.'—'Vagina ipsa admodum dilatata fuit: labia ejus fuerunt livida, et undique sanguine fœdata.' The fluid obtained from the stomach, intestines, and abdomen, was subjected to a chemical analysis, by Dr. Bostock; but no mineral or vegetable poison was detected in it.

Reasoning from these appearances, the medical witnesses for the crown deemed themselves justifiable in giving it as their opinion; (1), that the altered state of the coats of the stomach, was not the effect of putrefaction, or ulceration, or solution by the gastric juice, but probably proceeded from the introduction of some unknown agent capable of destroying the texture of that organ; (2), that the dilatation of the uterus and the enlargement of its orifice, but, above all, the placental mark and the increased size of the uterine vessels, afforded strong presumptive proof, 'that the deceased must have been delivered, a short time before her death, of a fœtus, which had arrived nearly at maturity.'—That the lesion of the stomach had not been occasioned by putrefaction, seemed to them evident from there being no marks of the putrefactive process having commenced either in its coats and contents, or in any other part of the body, and from the smell of the injured portion being not only not putrid, but slightly acid. That it had not arisen from organic disease, seemed equally clear, as there was no mark of gangrene, and no thickening of the edges of the altered part, as is the case when ulceration has penetrated the coats of the stomach. The supposition, that it had been partially dissolved by the gastric juice, they conceived to be entitled to as little attention; because, when this occurrence has been observed, it has been almost only in persons, who had died suddenly when in perfect health, and when the stomach was consequently in the full exercise of its functions; because in such cases the neighbouring viscera, as well as the stomach, have been found to be partially affected by the gastric juice; because, in Miss B., the power of this fluid must have been so reduced by the incessant vomiting, and by the large quantity of diluents taken into the stomach, as to render it incapable of acting on the coats of that organ; because the injury was not in the lowest and most depending part of the stomach, but in what must have been the superior surface, when the body was in the supine position after death; because the appearances did not correspond with the description which has been given by Mr. John Hunter, the only writer who has observed them; and, lastly, because the action of the gastric juice afforded no explanation of the inflammation in the smaller curvature of the stomach, in the duodenum, in the liver, or the fundus uteri. In confirmation of the

opinion, that poison might have been administered to the deceased, though it was impossible to discover any traces of it in the stomach or bowels after death, the authors of the 'Vindication' have detailed some experiments, which were made with *corrosive sublimate* on dogs; from which it appears, that this substance, when given in the small quantity of about two grains, may produce very violent disease, and an inflammation of the stomach, and yet cannot be detected in the bowels after death. In one experiment, however, in which it was given in combination with emetic tartar, and occasioned vomiting, followed by death in a few hours, no marks of inflammation were discoverable in the coats of the stomach.

The evidence above stated was impugned by Dr. Carson, on the ground, that the witnesses had, in his opinion, been very rash in referring the appearances in question to poison and pregnancy, as there were many other causes to which they could, with greater probability, be ascribed. The hole in the stomach, he conceived, could not have proceeded from the action of any deleterious substance during life, as no gangrene was visible, and as no poison was detected in its contents. He thought it possible, that it might have been produced, after death, either from the action of the gastric juice, or from the putrefactive process, to which, with Sir John Pringle, he attributes the digestion of the food. The dilated state of the uterus, he conceived, might have been occasioned by other causes besides pregnancy, such as dropsy or hydatids, from which the enlargement of the blood-vessels, which his antagonists believed to have belonged to a placenta, might also have arisen. If the uterus had remained in so enlarged a state after delivery, he was of opinion, that a coagulum would have been found within it, or that a fatal degree of flooding must have ensued; and as there was no proof that this had taken place, he deemed himself justified in rejecting the explanation, which the witnesses for the crown had given, of the enlargement in question. He thought that these gentlemen had been guilty of great presumption, in offering any evidence at all with regard to Miss B.'s case, as their examination had been confined to the cavity of the abdomen, and they had neglected to investigate the state of the brain, and of the thoracic viscera, and even to observe the appearance of the mammæ.

On looking into Dr. C.'s pamphlet for a full and satisfactory illustration of these arguments, (for we have hitherto confined ourselves chiefly to an abstract of the evidence delivered before the coroner, and at the trial,) the first thing which struck us, was a description of Miss B.'s illness, differing considerably from that furnished by the authors of the 'Vindication,' and not altogether consistent with that given by the other witnesses, if we may judge from the impression which the perusal of the Report of the trial left in our minds. Dr. Carson endeavours to prove, that this illness was of *a much less violent nature*, than the gentlemen alluded to would

have it believed; affirming, for instance, that Miss B. did not appear 'to have suffered any severe degree of pain;' that 'from the Thursday afternoon, the irritation of the stomach appears to have been completely removed. From that period she had no vomiting, reachings, nor pain in the bowels;' (p. 23); and he is decidedly at variance with his antagonists, respecting the appearance of the stomach, which, he says, 'had every where a natural appearance, was *uninflamed*, and covered with the natural mucus of the organ.' p. 19. This assertion, so inconsistent with the solemn report presented to the coroner, and with the other accounts of the case, raised, we confess, some suspicions of Dr. C.'s regard to accuracy and truth, which, unfortunately, have proved to be not devoid of foundation; for, in proceeding in the inquiry, we found that his history of the sickness and of the appearances on dissection varied considerably. Thus, speaking of the intestines, (p. 14), he observes, '*There was some slight peritoneal inflammation in different parts.*'—'It was *considerable* upon the small, but scarcely observable on the large intestines. The internal villous coat of the duodenum was slightly inflamed.' In p. 40, however, when combating the opinions of the authors of the 'Vindication' with respect to the appearances of the same parts, the following remarks occur: 'according to the evidence of Mr. Hay, there was *no inflammation* in the stomach, and the villous coat of the duodenum was only slightly inflamed.'—'It must be recollected, that Miss Burns laboured under a disease of *considerable severity*, affecting particularly the stomach and bowels. *Some inflammation, then, was to have been expected in these parts.*' How Dr. C. can reconcile these discordant observations, we are wholly unable to conceive.

If we were disposed to adopt the method which is often pursued in courts of justice, we should have little difficulty in proving, from Dr. Carson's own mouth, that his testimony is not of so consistent a nature, that it can be received in opposition to the evidence of the great body of respectable men,* with whom he has the misfortune to differ: but we have already expressed our determination to be strictly impartial; and it is but fair that our readers should be enabled to form some judgment of the mode in which the ratiocinations of Dr. C. are conducted.

The causes which he assigned in explanation of the history of Miss Burns's case, and of the appearances on dissection, have been already briefly stated. To the observations, to the experiments, to the knowledge, and to the opinions of his opponents, he will allow no credit; and he seems determined to maintain the superiority of his own reasonings, of his own chemical, physiological, and obstetri-

* We allude not only to the medical witnesses at the trial, but to the several practitioners in Liverpool and London, who have given their opinions of the case.

cal skill, to that of the united profession. How far his pretensions are justifiable, the following specimens will shew. Assuming the truth of Sir John Pringle's theory of digestion, in order to explain the hole in the stomach, he endeavours to shew how the different circumstances, favouring the putrefactive fermentation, might have been present in the case in question. He conceives, for example, that the water-gruel, which Miss B. had swallowed in great quantity before death, probably contained a quantity of salt, and that it retained the heat of 90°, after life had ceased, for a sufficient length of time (viz. *fourteen hours*) to dissolve the coats of the stomach. But as, in order to effect this, it was necessary that the *animal* putrefaction should have taken place; and as so far from there being any appearance of the kind, there was every proof of the existence of a *vegetable* fermentation, the contents of the stomach having 'a sour smell,' we began to tremble for Dr. Carson's chemical fame. Our fears were foolish; for his ingenuity can extricate him from all such difficulties. Fortunately for science, he has discovered, that, on such an occasion, the evidence of our senses is not to be credited, as 'from the experiments of the same ingenious physician above mentioned, Sir John Pringle, it appears that decoctions of flour, oats, and barley, do not for some time impede the progress of the animal fermentation, in a mixture of the temperature stated, but that at length, the *vegetable fermentation commences, checks the septic process, and sweetens the putrid effluvia.* At the time the body was opened,' he adds, 'the vegetable fermentation had commenced, had stopped the septic process, and had even produced a sour smell.' p. 46.

Dr. Carson is not content with this display of his scientific skill; he becomes fascinated by his own surprising powers of explanation, and proceeds to account for a variety of phenomena, which have no connexion whatever with the present question; and, among others, to give 'the reason why the blood of persons who die of poison and of putrid diseases does not coagulate, and why their carcasses pass more rapidly than others into putrefaction,' which he thinks is as follows:

'It is evident that the small quantity of poison that is taken into the body cannot have any effect directly upon the mass of fluids. It appears most probable that poison produces the phenomena we have mentioned, by its influence upon the nervous system. *It may, through this, be supposed to affect the vital principle in a peculiar manner, and, without extinguishing it, to deprive it of its peculiar properties.* Now, one of the properties of this principle is, to resist putrefaction:—may not, then, poison deprive the vital principle of its power of resisting putrefaction to a certain degree, while the heat of the body remains at the ordinary standard; and thus, *before death takes place*, the putrid ferment have considerably advanced among the fluids?' p. 50.

Who can read this without admiration? The *vital principle poisoned*, through the nervous system! losing its peculiar properties

without being extinguished!! allowing a putrid ferment to take place among the fluids before death!!!—Paracelsus himself never uttered any thing half so sublime.

To Dr. Carson's assertions respecting the 'lax and bag-like form' of the womb, and the immense size of the supposed placental mark, we are disposed to pay very little attention; as it can never be admitted, that a person, who did not see the uterus till several months after its removal from the body, is to be esteemed a more competent judge of its appearance, than those who examined it immediately after death. By their account, and not by Dr. C.'s, we must be allowed to abide; at least till it is clearly and satisfactorily proved, that they were guilty of misrepresentation; or that, of all the professional gentlemen who have given their opinion on the subject, the visual organs of Dr. Carson alone were correct. What medical testimony ever delivered in a court of justice could stand, if such a mode of confutation were pursued?—if a man, called upon to give evidence in such a case, were to be permitted to dispute, one by one, every mark which has hitherto been regarded as indicative of the pregnant state, and to adduce, as decisive proofs of the truth of his affirmations, all the exploded hypotheses and anomalous cases which he could collect from worm-eaten authors; if not satisfied with this, he were to address the jury and say: 'Gentlemen, you have heard a great many fine things, from my brethren on the opposite side, about the large size of the uterus, the thickness of its walls, the dilatation of its orifice, the fragment of a placenta, with blood-vessels as large as crow-quills, and the Lord knows what;—all which they declare that they saw: but I warn you not to believe them, or to suppose, that, if such appearances had existed, they would be any proofs of pregnancy; for, I assure you, they are nothing uncommon, even in the virgin state. And let me tell you, when I saw the same uterus a few days ago, it had become flaccid and whitened, from the spirits in which it has been preserved; there was no appearance of blood in any part of it; the blood-vessels were hardly visible; and as to that famous mark, which these gentlemen have talked so much about, and which they affirm to have been four inches and a half in diameter, I measured it very accurately; though it was far from distinct, I measured it, and found, that it was just "seven inches and a half in diameter one way, and six inches and a half the other;"* and I will prove to you by a diagram,† that this never could have been the mark of a placenta.' Yet such is the substance of Dr. C.'s train of reasoning in regard to the uterus, and such the arguments on which he has staked his professional reputation.

After the statement which we have laid before our readers, it is, we trust, superfluous to enter more fully into the particulars of the

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* Dr. Carson's 'Remarks,' p. 77. † Ibid. p. 135.

case, or to refer to the corroborative evidence, which has been adduced in support of the different sides of the question.—We certainly agree with Dr. Carson in thinking, that the medical witnesses for the crown were guilty of incorrectness, not to say culpable negligence, in omitting to examine *every* part of the body which they were required to dissect; but we cannot coincide with him in the opinion, that, because they had neglected so to do, their evidence was of no weight, and ought not to have been received. On the contrary, we hold them justified in affirming, that, from the appearances which they discovered, there was strong presumptive proof, that Miss Burns had died from the action of some deleterious substance received into the stomach, and that a short time before her death she had been delivered of a child. Whether their testimony was of such a nature, as to have inculpated the person accused of her murder, and to have brought home to him the charge of administering poison, or of procuring abortion, it is not our province to determine.

With respect to the general merits of the pamphlets before us, we have to observe, that Dr. Carson's has the decided advantage over that of his opponents in point of style. Had not, indeed, his arguments, his hypotheses, and his systems, been clothed in the garb of correct, and sometimes elegant, language, they could never have assumed the imposing appearance, which to many they may now seem to possess. We are willing to believe, that he has been misled by the abuse of this instrument of thought, and have therefore abstained from several animadversions, which we might have offered on his strange chemical notions, on his ravings about a vital principle, &c.: but we beseech him, either to correct his ideas on these subjects, or to spare us the task of criticising the physiological publication with which he has threatened us.

There is yet one part of our duty which remains to be performed. —It is always a painful office to pass censure on the moral conduct of any individual; and nothing but the importance of the occasion could induce us to offer any remarks on such a topic. When we first perused the 'Vindication of the Medical Witnesses for the Crown,' we were sorry to observe a great tendency to personality in many of their strictures, and imputed to them no small degree of blame, for allowing their private feelings thus to interfere with their public duty: but Dr. Carson, unfortunately for himself, has given a sanction to their invectives, by the sarcasms in which he has indulged, at the expense, not only of those immediately opposed to him, but of all who have ventured to espouse and defend their cause, however indirectly. We will not exactly charge him with *mala fides*; but, from an attentive review of his behaviour, both before and since the trial, we must say, that his conduct has been disingenuous, and even what the authors of the 'Vindication' have termed '*unprofessional*.' Still we cannot help thinking, that the profession and the public at

large are under considerable obligations to him, for having called their attention to a department of medical learning, which has been hitherto too much neglected in this country. No one can read the pamphlets, which we have just been reviewing, without being sensible of the want of a *code* of medical jurisprudence, by which the merits of the evidence delivered by our brethren in criminal cases might be accurately weighed and determined; or without feeling some degree of indignation at the ridicule which was attempted to be thrown on a late administration, for appointing a professor to teach so important a branch of science.

ART. XLIX. *Important Researches upon the Existence, Nature, and Communication of Venereal Infection in pregnant Women, New-born Infants, and Nurses.* By the late P. A. O. Mahon, Chief Physician to the Venereal Hospital du Vaugirard, &c. &c. &c. at Paris. These are contrasted with the new Opinions of the late John Hunter, upon this Subject, together with Observations thereon, by Jessé Foot, Surgeon. 8vo. pp. 110. Becket.

THE inveteracy of Mr. Foot's enmity to the opinions of Mr. John Hunter, during his life, is well known. The present publication shews, that a period of fifteen years, since his great rival was consigned to the grave, has not softened the asperity of his anger.

But Mr. Foot is not satisfied with censuring John Hunter; his pupils come in for a share of the castigation. We are told, (p. 100), that 'although John Hunter be no more, and his book waste paper, yet there are left pupils behind him who are now practitioners. These must embrace his opinions or none; for if they do not follow his lectures, they are now too old to attend to other teachers; and, consequently, if they do not bring into their practice what they learnt in their youth, they have no other knowledge in their possession worth imparting. They cannot praise their master, and condemn his theory. They cannot treat pregnant women, new-born infants, and nurses, as infected with the venereal disease, when their master has taught them otherwise. *These mistaken cases may be victims to their opinions and practice; and it is better* (say they) *that the cases be victims to our opinions, than that we pupils should be victims to the recantation of our opinions.*' The illiberality of this reflection is too gross to be commented upon.

At page 99, Mr. Foot calls John Hunter 'an illiterate person:' but we think the epithet, illiterate, is applied with a very ill grace by him, who, only a few pages before, has shewn himself ignorant of the meaning of the word *congenitus*. Yes, reader, Mr. Foot translates *morbi congeniti—known diseases!!* 'these are what authors have called known diseases, morbi congeniti.' p. 55.

We believe this is the first time that Mr. Foot has appeared before the public in the character of a translator from the French, and we cannot compliment him upon his success in the attempt. His translation is full of gallicisms; the construction of the sentences involved and obscure, frequently ungrammatical, and sometimes perfectly unintelligible. We give the following specimens:

'If the symptoms of venereal affections of new-born infants have been so long unknown, or badly described, and if the nature of that disease has not been sufficiently explained, we ought not to be surprised, when, on tracing back, we find that the venereal disease was not began [begun] to be known until the end of the fifteenth century, and that the best records of that disease in infancy, had been but little observed and badly described before the time of Harris and Rosen, who have yet left much to be done by their successors.' p. 5.

What is the meaning of the best records of a disease being little observed and badly described?

Again, p. 8. 'In surveying the most complete collection of ancient authors, who have written on the venereal disease, Aphrodisiacus de Luisinus, published for the first time in 1506.' But what results from this survey, Mr. Foot has forgotten to inform us.

P. 22. 'It often happens, that a child born of parents infected with the venereal disease, that there are no symptoms which prove its existence in them, while in others its existence is proved; the causes of which are, that the first are conceived and born before the venereal virus was in action, and the other is produced by the contrary effect.'

It is in vain to waste time upon such miserable stuff.

From the foregoing specimens, which are not selected as the worst in the book, our readers will be able to form a judgment of the merits of the translation: we shall say a few words upon the merits of the author.

Dr. Mahon was for upwards of ten years chief physician to the Hospital du Vaugirard, where he must have had very extensive opportunities of procuring information on the subject of syphilitic infection: it was therefore natural to expect, that in a work, dignified with the title of 'Important Researches upon the Existence, Nature, and Communication of Venereal Infection in pregnant Women, new-born Infants, &c.' some valuable facts would be added to the few we already possess concerning an operation, the nature of which has never been fully elucidated.

We are sorry to say, that our expectations have not been realized. With much parade, (but none of the perspicuity which he promises in his first chapter), Dr. M. goes through the names of the principal writers on the syphilitic affections of new-born infants: he then enters into an examination of the different modes of communicating the venereal disease from the mother to the child before its birth, or from children to their nurses, and from infected nurses to the children whom they suckle; replying to objections as he proceeds.

The principal information which we gain upon these subjects is contained in the following lines: if our readers can derive any instruction from the perusal, they will be more benefited than we imagine.

Dr. Mahon informs us, p. 49, that 'these are impenetrable questions to the human powers, and are those which tend to induce us to revert to the origin of things. Endowed with all the proper means for research, for analysing and classing effects, arranged in a manner to be accomplished by study and meditation, for acquiring the knowledge of the secondary causes, we still find insurmountable difficulties, which prevent our getting at the primary cause. We have proofs in the explication that we can give functions to the human subject; we know physically the apparent effect which every organ has, and every organ ought to have, and we distinguish the sensible variations which happen in their state; but the first motion of these organs, and the reciprocal action of these humours in their intimate combination, will be, without doubt, always an impenetrable mystery.'

Dr. Mahon finishes his pamphlet with 'an examination of the particular objections of Mr. John Hunter, that are drawn up in his work, against the power of infection of the venereal disease from children to their nurses, and from the nurses to their children;' in which he contends, that the facts which Mr. Hunter with so much 'frankness and candour' published in support of his opinions, are in reality a refutation of them.

'If the accidents which Mr. Hunter looks upon as diseases that only bear the appearance of the venereal disease, are symptoms completely analagous to those that we have constantly observed in the Hospital du Vaugirard, upon the wet nurses attacked with the venereal disease, and upon children born of infected mothers, if the symptoms of the nurses which are the subject of the observations of Mr. Hunter, only appeared after the suckling of diseased children, and the symptoms observed upon children, born of mothers not suspected of the disease, only appear after having sucked the milk of diseased nurses:—finally, if the greater part of these accidents have only yielded after the use of mercury, it must be concluded that Mr. Hunter is deceived, in believing those symptoms resembling the venereal disease, but in reality different from that disease, which were symptoms of the true venereal disease.' p. 73.

Three cases, published in Mr. Hunter's Treatise on the Venereal Disease, are reprinted, with Dr. Mahon's observations on them in opposite columns. These observations exemplify the mode of reasoning of which we have already given several examples.

Referring our readers to Mr. Hunter's work, we may take this opportunity of stating, that, without meaning to deny the possibility of a child being infected with *syphilis in utero*, of which we are acquainted with some instances, we have no hesitation in saying, that we believe Mr. Hunter's opinion on the subject to have been perfectly just. There are no good grounds to suspect that the fa-

ther of the child, in one of the cases alluded to, had been infected with the venereal disease after his marriage; and it is inconceivable that a gonorrhœa merely should have produced so much mischief in his constitution, as, after lying dormant several years, to contaminate his offspring *in utero*, without producing a single ill symptom in himself. We have observed, in various instances, children, *born of delicate and weakly mothers*, attacked with a disease resembling that described by Mr. Hunter, and have been much pleased to find that Dr. Willan, in his valuable publication on cutaneous diseases, has very accurately described the same, under the name of Pemphigus Infantilis. The symptoms enumerated by Dr. Willan, are very similar to those which Dr. Mahon relies upon as distinctive of the lues in new-born infants; and we can easily conceive, that practitioners may occasionally have confounded one with the other. An aphthous state of the mouth and tongue, though not mentioned by Dr. Willan, is a frequent attendant of the Pemphigus Infantilis; and it would not, perhaps, be difficult to demonstrate, that an absorption of the aphthous discharge, deposited upon the nurse's nipples, would bring on an unusual and distressing train of symptoms, which prejudice or alarm might magnify into appearances of syphilitic infection.

Had Dr. Mahon communicated to us any means of determining with precision between the venereal disease in infants and nurses, and diseases bearing some resemblance to lues venerea, but really different, he would have performed an acceptable and a very useful service for the medical world; but, as his book is the vehicle rather of declamatory arguments than of convincing facts, it adds little to his credit, and less to our instruction.

The most valuable parts of this book are two cases, published by Mr. Foot, which have more weight in establishing the point that he wishes to prove, than all the speculative reasonings and *verbiage* of Dr. Mahon.

ART. L. *Suggestions for the Prevention of that insidious and destructive Foe to the British Troops in the West Indies, commonly termed the Yellow Fever. With the Outline of a Plan of Military Hospitals, on a Principle and Construction tending to introduce a more successful Treatment of the Sick. To which are added, other Papers connected with the Subject.* By Stewart Henderson, M. D. District Staff Surgeon. 8vo. pp. 114. Stockdale, jun. Pall Mall. Printed at Birmingham.

DR. HENDERSON has been employed many years in the army and navy in the capacity of surgeon. As we have always felt disposed to listen to the suggestions of medical officers, who have served

abroad, and who lay before the public the result of their experience in the diseases of climates differing from our own, we took up this little book, prepared to give the author ample credit for his industry, and for the new facts and observations which he might have furnished. After enduring some very common-place observations upon the 'dreadful mortality' arising from that 'destructive foe,' that 'pernicious pest, the yellow fever,' we did hope to have been greeted with some information, some original remarks from so experienced a practitioner as Dr. H. represents himself to be; but in this we were completely disappointed, for the author found the opinions of Dr. Pinckard so congenial to his own, that he has adopted and quoted them, in preference to any which he could offer himself: in short, the last-mentioned respectable physician has furnished every remark that is valuable and interesting upon the subject of yellow fever, in the present performance. Surely it is not too much to expect, that a man who has had the opportunity of seeing yellow fever in all its varieties and degrees, which our author informs us he has enjoyed, should have been able to communicate some particulars from his own immediate observation, instead of being obliged to refer to others for a detail, which we could have given ourselves, without having even seen the disease. We wish not to see navy and army surgeons compile; there are already a sufficient number of closet-writers on medicine; we want original facts, simple and clear histories of cases; and, if the author cannot reason, we will not particularly censure him on that account.

After some observations in support of the opinion of Dr. Pinckard, that the yellow fever is not contagious, the author proceeds to give an account of military hospitals, which he describes as being in a deplorable condition; assigning their bad construction and want of proper arrangement, as 'a principal cause of the ill success which attends the military practice of physic:' he even thinks that they have 'greatly contributed to generate and nurse infection to that degree of virulence, which has been fatally experienced in this and every other quarter, particularly in the West Indies and on the continent; for a crowded hospital, badly situated, want of cleanliness, ventilation, and good nursing, will certainly counteract the best effect of medicine.' p. 51. To obviate these evils, the author submits the plan of an hospital, wherein each patient may have a separate apartment; and proposes, 'that a corps be regularly appointed to the hospitals under the name of hospital attendants.'

From the various accounts which we have obtained from practitioners of experience and reputation, we are confirmed in the opinion, that a culpable degree of neglect, and much improper management, have long existed in this department of the medical system of the army; and although, in our review of the pamphlets on the fifth Report of the Commissioners of Military Inquiry, we pronounced a favourable decision upon the general conduct of the army medical

board, it was purely from a conviction that two of its members had been unfairly treated, and the army physicians unjustly degraded. We then said, that a reform was necessary, but a reform directly the reverse of that which was proposed by the commissioners; for the greatest abuses which now exist, are proved to have arisen from the want of able physicians to superintend the military hospitals; and we are obliged to the present author for giving us an opportunity of offering a few additional remarks upon this subject. He thinks, with Dr. Jackson, that physicians to the army should be promoted by regular gradation to that situation, 'which should invariably be the reward of merit and long services:' he endeavours to prove the 'necessity of selecting physicians to the forces from regimental surgeons, whose knowledge has been matured by the experience of many years: for where one case occurs that requires their *surgical* aid, fifty occur that require their *physical* (medical) assistance; and, if they are not qualified to be physicians to the forces, there may be some impropriety in allowing them to officiate in that capacity, in addition to their other regimental duties.' In our review before alluded to, we demonstrated the advantages of separating the profession of physic and of surgery into distinct branches: to blend them together, is to deprive each of a portion of power, and to prevent them from arriving at that degree of perfection which singly they may attain. The man of liberal education, who devotes his attention to the acquirement of medical science, and deduces his principles of practice from the investigation of the symptoms and causes of disease, and an intimate acquaintance with the effects of agents physical and moral upon the animal economy, is alone qualified for the high distinction of physician.—This demands an application of talents very different from that which enables a man to acquire the knowledge and skill essential to the mere surgeon. We do not, in the least, wish to detract from the merits of the latter, or to undervalue his profession; we are rather disposed to rank it very high: so great, indeed, are the difficulties of attaining eminence in it, that few men have ever enjoyed that distinction. We have suggested these hints from a desire to convince our readers, that each profession is distinct from the other; and that to be eminent in either, requires all the time and faculties which the ablest among us can bestow; while to be great in both departments, is denied to the limited powers of man. How absurd, then, is the proposition, that surgeons' mates should be qualified to assume the important offices of physicians to the forces! We have before stated, that the demand for inferior medical officers is greater than can be supplied, whilst there is a competition among regularly educated physicians for the superior situations in the army. But Dr. Henderson gravely asserts, that physicians sent to hot climates always die; and want, themselves, that care and attention, which they ought to bestow upon the sick men: and he

therefore contends, that those only should be employed, who have been inured to the climate. 'Strangers to the service, destitute of local knowledge, inexperienced in the diseases incident to soldiers in a tropical climate—unaccustomed to the fatigues and hardships of a military life, and not inured to a hot climate, they (the physicians) were among the first who were disordered, and, instead of being useful to the sick soldiers, required medical assistance themselves. In the course of a few weeks, most of the physicians either died, or were rendered totally useless.' Accustomed as we are to variety, we could not help being amazed at the preceding sentences, containing such an unfair 'statement' of what occurred on the melancholy occasion alluded to. It is true that the country did lose many valuable physicians in the West Indies, during the last war; but at the same time we remember, that more than one-half of the army was sick: so fatal indeed was the season, that a great number who were convalescent died. And when it can be proved by authentic documents, that, although fresh supplies of mates were constantly poured in, to fill the places of those who were daily dying; when it is known, that the duties of the physicians, so long as they lived, were arduous in the extreme; and that, although the medical officers of every description were employed night and day, still numbers of sick could not have any assistance whatever; we must deprecate the manner in which Dr. H. has taken advantage of a great public calamity, to insinuate such aspersions on the professional character of those unfortunate gentlemen, who fell the victims of their zeal on that occasion. We believe that Messrs. Young and Weir, who were then Inspectors General, are still living, to assert these facts; and we could quote several other authorities in their support: our limits, however, preclude us from inserting more than the following extract of a letter from Mr. Young, dated St. Pierre, Martinique, October 8, 1796, in which he states the impossibility of making the proper returns, on account of 'the numerous sick in the regiments, amounting sometimes to 400 or 500 (in each), divided in different islands, and at an extensive chain of posts; the *surgeons and mates* often taken sick and dying from the fatigue 'of the duty thereby occasioned:' and, in another letter, he gives the names of four hospital mates, who had died within the last twenty-four hours! Now, Dr. Henderson very carefully conceals all this—and would have us believe that the physicians, in particular, were liable to death. If his plan were adopted, it would often happen, that the least qualified person, by the mere accident of surviving his comrades, would have to perform duties of which he would be wholly incapable.

Dr. Henderson affects to be sarcastic, and even witty, upon the licentiates of the London College of Physicians: but his invectives are too general to affect their character, and his wit, though aided by *italics*, is too subtle to be intelligible; whilst he proves himself

to have been acquainted with a description of physicians very different from the members of the Royal College of this country, and, we trust, for the sake of humanity, not existing in any other. He dwells with great complacency, and fatiguing reiteration, upon the exploded cant of youth and inexperience. But, however such sentiments may become the dotage and imbecility of old-age; however some people may measure the depth of a man's understanding by the wrinkles of his forehead, or estimate the soundness of his judgment by the whiteness of his locks; we assert, that youth is the season of activity; that at the period of life when physicians are appointed in the army, the mind, imbued with the principles which it has so recently imbibed in the schools of medicine, is fertile in resources, is prepared to meet difficulties, to surmount obstacles, and in new cases to suggest new remedies. It is not he who has seen the most, but he who is best prepared to profit by what he observes, whom we are disposed to consider as properly qualified to practise the healing art; and we claim the attention of our author to the following lines of the intelligent Zimmerman, where he observes: 'There is only one prerogative which the young man of merit is unable to dispute with ignorance in gray hairs; and that is, the number of years: and, yet, alas! we see the idea of experience attached to this prerogative, piteous as it is; and the old man is always enabled by it to keep the young one at a distance, like an old and sapless tree, which, by its withered branches, prevents the young and promising plant from rising.' *Exper. in Physic.* vol. i. p. 7. In every profession there will be a number of idlers: if these are appointed, by interest or by purchase, to offices of trust, is the blame to attach to the profession itself, or to those men who abuse the public confidence? If army physicians be wanted, we could point out where they may be found, competent to discharge every duty required of them, and competent to expose the abuses and remedy the deficiencies, which the commissioners of military inquiry could not discover; and which, if they had noticed, according to the principles which they have promulgated, they must have sanctioned with their unqualified approbation. Men of merit and real attainments in the medical profession, are not to be sought for among the servile mob of a levee; they will not court the great, nor bribe an office-clerk: if you wish for their assistance, find them out, and offer them the situations for which they will not be candidates, whilst the most importunate or insinuating have the best chance of succeeding. The public medical charities of London alone would supply the army with efficient and experienced physicians.

This work concludes with an account of the author's success in 'preserving the health of the seamen on board his Majesty's ship Astræa, on the Jamaica station, in the years 1787—1790,' with practical remarks on the diseases which occurred during that period. These observations will prove instructive and interesting to all

who may be placed in similar situations with the author: and had he confined himself to such judicious details of practice, and suffered his merit to speak for itself, we should have noticed his labour with becoming praise.

ART. LI. *The candid Appeal to the British Public, of John Buffa, M. D. late Physician to the Army Depôt, Isle of Wight. Intended only as a measure of justification, to rebut a gross and unfounded stigma, cast on Dr. B. by the persons composing the Army Medical Board; containing his Remonstrance to His Royal Highness, Field-Marshal, the Commander-in-chief; and subsequent Correspondence with the Army Medical Board, giving a minute and circumstantial Detail of all the Abuses in that Depôt Hospital.* 8vo. pp. 53. Dickson.

DR. BUFFA was reduced to half pay, and deprived of 15*s.* 6*d.* per diem, allowed him for extra services, on the charge of 'improper conduct in the Isle of Wight.' His present appeal contains a statement of the particulars which occurred, and an attempt to vindicate his character. But as we have only his own testimony in favour of his innocence, it is not for us to determine which party is right. If all that he asserts be true, we can only say that he has been hardly used: at the same time, we cannot consider Dr. Buffa to have ever been of sufficient consequence to incur, without just cause, such severity from the army medical board, and that severity sanctioned by the Duke of York, who, after paying due attention to the author's repeated statements, dismissed him with the following laconic epistle:

SIR, 'Horse Guards, 1808.'

'I am directed by His Royal Highness, the Commander in Chief, to inform you, that he regrets your misfortunes, but cannot comply with your request.

I remain,

SIR,

Your obedient humble servant,

J. W. GORDON.

ART. LII. *Treatise on Pulmonary Consumption; in which a New View of the Principles of its Treatment is supported by Original Observations on every Period of the Disease. To which is added, an Inquiry, proving, that the medical properties of the Digitalis, or Fox-glove, are diametrically opposite to what they are believed to be.* By James Sanders, M. D. one of the Presidents of the Royal Medical and Physical Societies of Edinburgh. 8vo. pp. 319. Longman & Co.

HERE is an abundance of promise and pretension to excite the expectations of the multitude: 'a *new* view' of the treatment; '*original* observations on every period of the disease;' and a *proof* that all medical men living, the author excepted, are gross blunderers, inasmuch as they unite in believing that which is 'diametrically opposite' to the truth!

Quid dignum tanto feret hic promissor hiatu?

If there be a subject in medicine, to which the observation of the wise king, that 'there is nothing *new* under the sun,' is particularly applicable, we conceive pulmonary consumption to be that subject. For it has claimed the attention, and exercised the pens of physicians of all ages, and of all sects; and yet it has been represented under a greater uniformity of character than almost any other disease. It has been submitted to the most opposite modes of treatment, as speculative opinions have dictated; and it remains, nevertheless, the opprobrium of our practice and our theories. If the inference of Celsus, in respect to the futility of our 'views' and 'principles,' be satisfactory on this ground, 'quòd, qui diversa de his senserint, ad *eandem* tamen *sanitatem* homines perduxerint;' how much more conclusive is it in relation to a disease, in which, under every system, the *same* uniform *fatality* has ensued! We are far from wishing to damp the ardour of inquiry, or even to insinuate that it is absolutely vain, when directed to such a subject: but, when we see an individual, whose very titles and dignities imply inexperience and limited opportunities of observation, pretending to overstep all his contemporaries, as well as his predecessors, in the accuracy of his knowledge, such considerations naturally suggest themselves against the probability of his success. And we can assure our readers, that a careful perusal of the volume does not lead us to retract or to modify this opinion.

The author commences with a long chapter, in which he describes 'incipient phthisis,' or gives 'a detail of those symptoms which precede distinct inflammatory action.' This chapter is, like Bayes' prologue, a very convenient one; for it would serve as a prefatory history of every chronic disease, in a delicate constitution. 'Whoever is so affected,' we are told, 'can neither run nor climb with the

same ease of respiration as others;—he cannot live in a marshy country—nor expose himself to vicissitudes of weather;—he can neither neglect the natural evacuations, nor omit the artificial, such as venesection;—he can neither be greatly grieved, nor greatly exhilarated;—he cannot devote himself to excess in study, nor in the gratification of appetite or passion, on the one hand, nor bear privation on the other.' But in the next page we are informed, that 'they are generally addicted to the pleasures of love,—very many of them become fond of convivial intercourse and intoxication; some of them, for perhaps several months, proceed in an almost uninterrupted course of *astonishing* dissipation, by which they may seem to have meliorated their health!' And then the author describes the melancholy and gloom, often terminating in suicide, to which these persons are subject!

Did Dr. S. intend to instruct us in regard to the early symptoms of phthisis, in order that we might be enabled to combat them, before the disease was fatally fixed? or did he, by thus combining incongruities, merely intend to inform us, that consumption occurs in the most opposite varieties of temperament? In either case, his account is a tissue of confusion, and absolutely useless with any view to diagnosis. Discrimination is the soul of experience: and thus to confound what is peculiar with what is in common, to mistake the accidental for the permanent circumstances of a disease, is to forfeit all claim to the possession of that qualification.

The author then details the 'inflammatory symptoms which terminate in and accompany suppuration,' the symptoms 'indicating the presence of pus;' and, lastly, those which indicate 'the presence of mortification!' In these details there is the same indiscriminate combination of common appearances, with others that are perhaps never seen, at least which we never witnessed: for instance, 'headaches of indescribable torture, which may even induce wild delirium,' among the inflammatory symptoms; and among those indicative of *pus*, 'it is to be dreaded,' under certain circumstances, of restlessness, &c., 'that an attack of furor, like that of phrenitis, will succeed,' p. 16: and the general appearance of petechiæ is also stated among the indications of *pus!* p. 18. We believe, that these spots occasionally appear, but only at the very termination of the disease, 'as the immediate forerunners of death.'* We are surprised that the author did not mention them as symptoms of mortification.

We have already had occasion to animadvert upon that absurd disposition to generalize every morbid change that approximates to inflammation, in every part of the body, of whatever structure, under the same identical name, and to find out the same course and

* Willan on Cutan. Diseases, Part IV. Genus, *Purpura*.

progress, in them all, in spite of fact and observation.* We dare assert, without fear of contradiction, that there is very little in common in the progress of a pulmonary tubercle, and the inflammation of the coats of the intestines, in enteritis: yet the only possible reason for talking of the regular stages of inflammation, suppuration, and gangrene in the former, is because it has been observed in the latter. This is the resource of ignorance and idleness: it is easier to follow a slight analogy, than to trace the operations of the animal economy through all its labyrinths and recesses; it is much easier to weave a specious hypothesis in words, than to observe, to compare, and to arrange the phenomena of disease; and the more specious the hypothesis, the more pernicious it is to science, for it is the more effectual bar to farther investigation. To our author, indeed, these last observations do not apply; he cannot be accused of hypothetical ingenuity; for he has taken up gratuitously a coarse and vulgar analogy, without attempting to distort the facts in support of his opinion, or to accommodate his opinion to the facts.

In describing the appearances on dissection, with a view to explain the nature of the disease, the author breaks out into magnificence of style, 'projicit ampullas,' and seems to be inspired by the most loathsome mass of disease, that dissection can exhibit.

'The lungs are in one *wonderfully* shrivelled, and in another, *enormously* swelled;' (though bound in a case of bone), 'even the air cells have been found *prodigiously* enlarged.'—'In different instances, the substance of the lungs has assumed the appearance of muscle or tendon; is *signally* indurated with scirrhous, osseous, and calculous formations; is softened into adipose or gelatinous matter, and is disfigured by hydatigenous productions.' p. 43.

This is *surprisingly* fine! but unfortunately it is not true. If the author had studied for a month, to give a description of what *is not* observed in the lungs of those who die of phthisis pulmonalis, at least in 999 cases of a thousand, and to avoid the mention of all the ordinary appearances, he could not have succeeded better. At the conclusion of the chapter, however, he mentions the existence of tubercles in the lungs;—'very many of them,' he says, 'are not larger than small seeds, and others are of *incredible* magnitude.' (How definite!) 'In fine, every species of sore, from the minute pustular to the large *cancerous!*' &c. p. 45. He concludes this section, by ridiculing the opinions of Cullen, Brown, Darwin, Rush, and Willis!

We trust that our readers will excuse us, after the specimen which they have already perused, from entering minutely into an analysis of the remainder of this volume, and will be satisfied with a slight

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* See our Review of White on the Diseases of the Liver.

notice of some of its peculiarities, from which its whole character may be estimated.

The first and most important object of the physician is to ascertain the nature of the disease, which he is called upon to alleviate: *i. e.* not merely to give its nosological name, but to detect the species and modification of its symptoms, the temperament of the patient, and the peculiar circumstances in which it differs from other disorders, which resemble it. For from such an inquiry alone can a rational plan of cure be suggested. But our athor has done every thing in his power to confound such discrimination. After a discussion of many pages, which consists of verbal dispute and distinctions without a difference, in regard to the predisposition to and the causes of phthisis, and the signification of the term, he thus begins his chapter respecting the diagnosis.

'Phthisis pulmonalis and ulceration of the lungs, have, in general, been believed necessarily to co-exist; but, according to the principle just assumed, that the name phthisis pulmonalis must comprehend the whole series of morbid change, which terminates in the destruction of the organization and substance of the lungs, the ulcerative process is only part of the disease; on the same principle also, contrary to custom, the *pneumoniæ*, so far as the lungs alone are concerned, must be considered as varieties of phthisis.' p. 71.

This is puerile enough; a mere verbal conceit. The author deceives himself, by the use of his qualifying phrase, 'so far as the lungs alone are concerned,' which is an absolute absurdity in medical language. For *pneumonia* necessarily implies the existence of those other symptoms of disordered habit, by which it is characterized, and therefore distinguished from phthisis, and every other disease. This is not only to confound all diagnosis, but to mistake a disease for its sequela, and the sequela for the disease. And surely the difficulty of ascertaining when the absolute phthisical action is begun, after catarrh, pneumonia, &c., of which the author complains, p. 60, might lead not less obviously to the inference, that our discriminative powers are imperfect, than to the conclusion that no difference actually exists. After all, we repeat, it is an useless dispute about words; for whatever we may *call* the varieties and stages of the diseases, the necessary and usual variations of treatment are not improved by the observations of Dr. Sanders. It is curious to remark, that, in a work professing to give 'new views' and 'original observations,' the three sections of the chapter on the diagnosis consist merely of remarks on the difficulties of ascertaining it, and the mistakes of medical men, in supposing it to exist, when the brain, the heart, the trachea, the liver, &c. have been the seat of the disease; and on the impossibility of ascertaining the presence of phthisis by the expectoration of *pus*, or the occurrence of hectic fever.

It is not less extraordinary, that, at page 104, two other species of phthisis are for the first time introduced, and discussed in the compass of 14 pages, when the author returns again to inflamma-

tory phthisis, which occupies his attention to the end of the treatise. We were here not a little surprised to find, that 'of the first species, the pneumonia, as generally understood, and the formation of phlegmonous tumours and abscesses, are examples:' for we were not aware that Dr. Sanders had been treating of pleurisy and peripneumony under the name of phthisis! nor can we now recognise the picture. The second species of phthisis 'is independent of inflammation, and the consequence of diminished vitality. The third, in which the two former are combined, begins in a state of torpor, and becomes inflammatory.' p. 104. The second is exemplified in cases, where the symptoms are not well marked, but the lungs are found diseased after death; and the third is the tubercular or scrofulous phthisis.

With respect to the treatment, we have looked in vain for the 'new principles,' unless something like novelty is to be found in the following observations. Speaking of the suppurative stage, our author observes:

'When sores are in the state of action, during which they heal, the matter discharged from them assumes the form of laudable pus, the formation of which requires an action of the system a very little stronger than that of usual health; to maintain which, generous diet, with wine, bark, &c. and gentle exercise, are necessary.'—'When the suppurative process begins to degenerate, and instead of resembling laudable pus, the sputa are thin, viscid, and transparent; our remedies must be of the more active kind, and their use must be persevered in, and their doses increased, in proportion to the difficulty which we experience in rousing the vital functions to the requisite activity; and *even though a considerable degree of fever should be excited*, we must persevere until the sputa assume the proper form.' p. 136.

This perseverance, we apprehend, would lead to a similar result, as the old practice of persisting in blood-letting, until the buffy coat disappeared; the patient always disappeared first! But the author goes on:

'When the sputa become sanious, ill-coloured, fœtid, and putrid, the most powerful remedies are to be employed with the utmost activity; wine, cinchona, camphor, &c. *in profusion;* digitalis *with circumspection;* and all of them to be alternated with substances of similar quality.' p. 137.

We are satisfied, that it is sufficient to point out these observations to our *experienced* readers; for they convey their own refutation: we should even conceive, that they would scarcely pass current among his garrulous associates, the novices of the Royal Medical and Physical Societies. It will not readily be supposed, that, in his caution respecting the use of digitalis, in this stage of phthisis, he alludes not to the danger of debilitating the system, but to that of *over excitement;* the digitalis having been 'proved,' by his experiments, the most powerful stimulus in nature!

The 'inquiry *proving* that digitalis is possessed of medicinal properties, diametrically opposite in nature to what they are believed to be,' occupies 130 pages, and comprises the relation of a few cases,

and of the results of experiments, together with some speculative discussion, and comments upon the opinions of authors. Dr. S. has, in our opinion, acted most injudiciously, in prefixing to this inquiry his treatise on consumption. For having not only failed, in that treatise, to establish his claims to originality of observation and novelty of treatment; but having advanced a number of statements, which are obviously inconsistent with fact, and which a very moderate share of practical knowledge is sufficient to confute; and having also laid down rules of treatment, with all the confidence of long experience, which are clearly the dictates of unchastened hypothesis and loose analogical reasoning; he brings us to the inquiry in a sceptical mood: we naturally question his accuracy of discrimination, his practical skill, and his freedom from the shackles of preconceived theory; and if our instructor be questionable on these points, what effect can his strongest statements produce in our minds? Accordingly we must aver, that, although a degree of inconsistency in the *reasonings* of some authors on the subject may be pointed out, we conceive the *facts* which they have stated, and the practical views which they have taken, relative to the use of digitalis, remain unconfuted. We mean not to assert, that we are perfectly acquainted with the powers of this active medicine, but that our opinion respecting it remains unchanged, after the perusal of Dr. Sanders' inquiry; and that he has stated circumstances so directly the reverse of our own and the general experience, in this as well as in the preceding treatise, that we cannot give up our evidence to other points, which we have not had occasion to examine so minutely.

The first inference of the author, from his experiments, is, 'that digitalis possesses the property of increasing the force and frequency of the pulsations in healthy persons; and that, if its use is persevered in, it will induce the symptoms of inflammatory disease.' p. 199. He proceeds to relate several cases, chiefly of phthisis, in which it was administered; whence he deduces the same inference, as to its effects in a state of disease. Taken in small doses, he says, its immediate operation is to increase the strength and frequency of the pulse; and, if the doses are repeated daily, a febrile state is gradually induced; after which, 'an *astonishing* lowness of pulse, and alarming debility,' ensue. The following passage contains the facts, which the author affirms that he has invariably observed, more distinctly.

'It has been demonstrated, that each small dose of the digitalis taken by a person in health, increases the force and frequency of the pulse; and if the doses are repeated, that they will induce an inflammatory action of the system: that also, in disease, the first effects of digitalis, exhibited in small doses, are to increase the force and frequency of the pulse; to excite and maintain that degree of action during which sores assume the action of healing; to promote the process by which effusions are removed from any of the cavities or parts of the body; to enliven the mind and improve the

powers of voluntary motion; to invigorate digestion and increase the evacuations by the skin, and by the urinary organs; in the mean time, the pulse is gradually attaining a febrile activity, so that from 70 or 90, if the use of the medicine is incautiously persevered in, the pulse shall be raised in a short time to 120, 130, or any number between these and 150.' p. 274.

Then the stomach and head become disbrdered. These febrile symptoms, even if the medicine be discontinued, may continue undiminished for four or five days; but generally in the space of twenty-four hours, the 'astonishing' symptoms of lowness and debility supervene.

For ourselves we can assert, that such a fox-glove-fever is not apt to occur in our own practice; and we feel very much disposed to class it with the phrenitic *furor*, the symptoms of *gangrene*, the *cancerous* tubercles belonging to phthisis; and with the cures of this disease, accomplished by a *profusion* of port wine, bark, camphor, and other such remedies. No wonder Dr. Sanders was delighted with this discovery, which thus fills a crevice in the admired Brunonian edifice, and annihilates a theme of constant contention in the 'Royal Medical and Physical Societies,' viz. the existence of a '*direct* SEDATIVE.' No wonder that he gained proselytes, whose names fill a page, among his brother theorists;—that he hence assumes a high tone, and laughs at the pitiful hypotheses of Willis, and Cullen, and Rush!—Sedatives are banished, and Bruno prevails!

> ——————'Iö triumphe,
> Non semel dicemus, Iö triumphe,
> *Societas* omnis, dabimusque Divis
> Thura benignis.'

Before we conclude, we cannot but advert to the pomp with which a contemporary journalist* has elevated our author to the dignity of *head of a school*, informing the world, that 'his disciples are respectable both by their numbers and knowledge,—they carry with them the peculiar opinions of their leader, and will doubtless diffuse them by the influence of their learning and *authority*.'—Our brother critic may perhaps be one of this till now unknown school, and therefore we bow to his superior knowledge on the subject. But we certainly conceive that a few fellow-students, meeting occasionally for the purpose of experiment, which, even he acknowledges, will require to be greatly multiplied before the matter can be established, do not merit any such encomium; and we sincerely hope, that neither their authority, nor that of their panegyrist, will ever have sufficient influence to diffuse opinions, brought forward by an individual so decidedly prejudiced as our author, until a most ample collection of sound observations have confirmed their truth.

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* London Medical Review, No. II. April, 1808.

ART. LIII. *A Treatise on Scrofula.* By James Russell, Fellow of the Royal College of Surgeons, and Professor of Clinical Surgery in the University of Edinburgh. 8vo. pp. 144. Murray. Printed at Edinburgh.

IT is a fault common to professors and lecturers of every description, that they are disposed to form very extravagant notions of their own importance, to become fascinated by their own discourses, and to imagine, that what they have so often delivered to their pupils with applause, must be received with gratitude by an admiring world. Hence it comes, that scarcely a week passes, without our seeing announced, from the pen of some public teacher, a new treatise or system of science, designed to eclipse all former writings of the kind, from the originality of the subject, the excellence of the method, or the beauties of the style in which it is composed. Some of these gentlemen, indeed, are so modest, as to confine themselves, at first, to the production of a syllabus, or an introductory lecture, set forth to allure an audience, and substantiate their claim to be heard; but we have generally remarked, that, in proportion as the bait proves successful, the enticers are apt to be themselves caught, and to become so intoxicated with their successes, that they end by exposing themselves and their arts, by printing and publishing the *lectures as delivered* in this or that institution, at full length.

The author of the pamphlet now before us, has adopted a somewhat different, though equally cautious mode of proceeding. Having been long in the habit of lecturing to the surgical students of Edinburgh, he has occasionally sent to the press those orations which received unusual plaudits from his audience, or with which he was particularly delighted himself; and having thus felt the pulse of the public, if we may be allowed so to express ourselves, he determines to make his *finale* by 'a System of Surgery in 4 volumes 8vo.' We must confess that this (apparently sudden) resolution has struck us with some alarm, as, judging from the present publication, we could not help anticipating, in imagination, the irksomeness of the task that would be imposed upon us of wading through *a complete system of surgical science,* composed in the same diffuse, turgid, and soporific style, as the 'Treatise on scrofula.' But we trust, that Mr. Russell will pause a little before he thus farther commits himself; that he will either apply to his colleague, the Professor of Rhetoric and Belles Lettres, for instructions how to condense his thoughts and mode of writing, or else retain the manuscript safe in his port-folio: for we can assure him, that, however much his northern friends may be warmed by such samples of his eloquence, they will be received with coolness, if not treated with ridicule, by his brethren on this side of the Tweed.

If, however, defects of style had been the principal blemish in

the performance under review; if the author had conveyed any new and valuable information respecting a disease which has hitherto been the stumbling block of both theoretical and practical physicians; if, even, he had done nothing more than collect and digest the observations of those who have before treated of the same subject; we certainly should have been far from expressing so unfavourable an opinion of his labours, as we shall always be willing to overlook the more trivial faults of a writer who communicates useful knowledge, without the boast and affectation of doing more than he executes, or has it in his power to perform. But truly it would be expecting too much from our critical patience, greatly as it is often exercised, that we should tamely listen to a man, who, in a dissertation of 144 pages, tells us nothing which we did not know before, or which we could not have found narrated by twenty other writers in one tenth of the space. It is always a suspicious circumstance, when an author's ideas do not keep pace with his words; and we cannot help impeaching his imagination or his judgment, when we find a thought, which might have been compressed in a single sentence, spun out and expanded through some dozen pages. Frequently, indeed, it happens, that his ideas become, from this unnecessary waste of words, lost even to himself; and he runs on, uttering a variety of melodious sounds, which have absolutely no meaning, or which, at most, resolve themselves into a series of identical propositions: so true is the observation of the poet—

> 'Words are like leaves; and where they most abound,
> Much fruit of sense beneath is rarely found.'

To justify these animadversions, and to prove that they were naturally suggested by a perusal of Mr. Russell's Treatise, it will be only necessary to cite a few of the abstruse observations and splendid truisms, which strike our eye in almost every page; and we trust, that when we give these, with one or two other passages which we may afterwards subjoin, we shall have credit for presenting the chief substance of the work. In page 38, for example, under the head 'occasional causes' of scrofula, we find the following unintelligible remark: 'but even the possibility of suggesting the question, as plausible, is alone a proof of the great influence which they possess, and of the great attention which they require to guard against their operation.' In page 54, we are taught, that, 'although the cold bath acts as a tonic, and invigorates the system, when *judiciously* employed, it produces *a contrary effect*, when the circumstances of the case are *not favourable* to the practice.' Speaking of cathartics, (p. 65), the Professor very gravely informs us, that '*when an unhealthy accumulation exists, the operation of purgatives removes a load which oppresses the system*, and, by the diminution of the fæculent mass, relieves the power of digestion.'—'It is obvious,' he adds, 'that in cases of scrofulous atrophy and

emaciation, proceeding from loaded bowels, any *excess of purging*, after the accumulation has been removed, *would prove detrimental, by producing a hurtful reduction of strength;* while, on the other hand, *any deficiency in point of evacuation*, so that an oppressive quantity of fœces was still allowed to remain, *would frustrate the intention of the practice.*'—' But *the delicacy of management,*' he assures us, ' *is not nearly so great, when scrofula is connected with more vigour of constitution and plumpness of body!*' In page 69, the following profound reflection occurs: ' But whether this explanation of the *modus operandi* be just or not, there is no doubt of the *celebrity* of sulphureous waters, *founded on the public estimation*, of their efficacy in the cure of scrofula.' This is perhaps equalled by an observation in page 74—' The effects are undoubtedly *beneficial* when the circumstances of the case are *favourable to the operation;*' though it is certainly surpassed by another in page 101, where the author, talking of the bad consequences that are sometimes, contrary to expectation, found to ensue from the application of leeches to the margin of inflamed scrofulous ulcers, is so kind as to tell us, that ' the disappointment is *the more vexatious from being unexpected.*' In page 112, we receive the important intelligence, that, ' if any good is to be expected from the interference of art, in the management of scrofulous sinuses, *the incisions must always be made equal to the emergency of the occasion*, otherwise the patient will be subjected to irritation and distress, and eventually exposed to danger, for no purpose.' But the subject of glandular swellings seems to have furnished our author with the most brilliant ideas: thus, (p. 121), we are told, ' the *topical treatment* of swelled glands, and of other tumefactions of a solid nature, *must bear a certain relation to the circumstances of the case.* The treatment of swelled glands, in particular, will vary, *according to the state of the gland, and the depth of its situation.*' Again, (p. 122), he very sensibly remarks, that, ' when enlarged glands, *which lie superficially, or adhere to the surface, are attacked with inflammation, and threaten to suppurate, they are then more within the reach of external applications:*' and, in page 129, he condescends to acquaint us, that ' *this unsteadiness* in the appearance of disease, is at least *a proof that the scrofulous affections in these two sets of glands, are not connected by any immutable law;* and that the presence of swelling in the superficial cervical glands, does not alone entitle one to form any positive conclusion with regard to the state of those situated within the trunk of the body.'

If any of our readers have been able to accompany us through these extracts, without experiencing their narcotic effect, perhaps they may succeed in resisting the power of Morpheus, while we give the following specimens from the hand of the same great master of the *chiaro-oscuro;* especially, as they really seem to us to possess some pretensions to novelty, containing nothing less than an attempt to apply the INFINITESIMAL CALCULUS to surgery!

'In all cases,' says Mr. R. in his section on the *local* treatment of *particular* symptoms, 'the simultaneous existence of contradictory indications, presents one of the greatest difficulties in practice. It is obviously impossible to fulfil both indications at one time; so that the surgeon is often obliged to make a compromise between two opposites, which cannot be reconciled, or to sacrifice one of the indications, when it is comparatively of little value in respect of the other. In the former of the two cases, which was the subject of reference,* the difference between the opposite indications might be called *a permanent quantity*, as the swelling on the hand was a *chronic complaint*, and the state of the constitution uniform; so that, with regard to this point, it was immaterial at what period of the case any alteration was made in the regimen of the diet: neither was it a matter of much delicacy, in other respects, since the balance was not so nicely poised, as to subject the patient to danger by experiment. A diminution or augmentation of allowance required time to operate, and exhibit visible effects, which were always apparent in sufficient time to permit of a seasonable change, when the practice appeared to decline too much to the one or the other extreme. In this way, *the variation might be said to oscillate within determinate limits*, which no prudent practitioner had any chance to exceed, and in which repeated trials would at last ascertain the mode of living which was best accommodated to the circumstances of the case.'

After some similar remarks on the second case, which we shall pass over, our chirurgo-mathematician proceeds—

'With regard to the variation in the relative importance of contradictory indications, it is plain, that how transcendent soever the superiority of the more urgent indication may be at first, yet *if its urgency be constantly on the decline, while that of its opposite is constantly on the increase, the difference between them will insensibly diminish till they pass one another, and till the urgency of that which was originally the inferior, comes at last to preponderate.* After this manner the most imperative indication ultimately vanishes altogether, and is no longer an object of attention: on the contrary, the *nascent degeneracy* of a sore, which seems undeserving of notice at its commencement, will, by increasing malignity, attain a degree of consequence which demands the most active interposition. *In these opposite progressions, there is a point of time at which the relative importance of the contradictory indications is transferred from the one class of symptoms to the other;* and, in the management of certain interesting cases, it is a matter of equal delicacy and importance to seize the moment of transition with accuracy, lest, by an injudicious perseverance in the original line of practice, effects may be produced which cannot be afterwards counteracted.'

Those who are at all conversant with similar works, will not be much surprised to hear, that Mr. Russell sometimes descends from his sublime flights of language, and deigns to talk in a very homely style. Thus while, in one page, we have such elegant phrases as

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* The case, namely, of a lady who had a scrofulous swelling on the back of her hand, and who recovered by abstaining from wine, and keeping herself quiet.

the following: 'degenerating aspect,'—'transgression of a regulated diet,'—'a scrofulous predisposition *ingrafted* on a vigorous constitution, *interwoven* with a plethoric diathesis,' &c. we are told in another, that, under certain circumstances, 'endemical diseases *get well,*' and that '*plenty of sleep,* at an early hour of the night, is most refreshing and invigorating.'—But it is needless to multiply instances of the pompous inanities of which this performance is composed, or to adduce further proofs of the want of prudence which the author has evinced in thus committing his literary reputation—

> 'Such labour'd nothings, in so strange a style,
> Amaze the unlearn'd, and make the learned smile.'

The only practical observation which we think it worth while to repeat from the Treatise on Scrofula, relates to the utility of warm bathing in scrofulous cases. From the benefit which we have had the opportunity of witnessing from its employment in such cases, we are satisfied that it cannot be too much recommended, at least as a great palliative of the disorder. In other respects, we are afraid, that, notwithstanding the publication of Professor Russell's lecture, of which, it seems, 'the great object was to convey information in a *plain and simple manner,*' (pref. p. iv.) the cure of scrofula will remain equally hopeless as before, and a specific for it must still be ranked among the numerous *desiderata* of medicine.

ART. LIV. *Observations on Madness and Melancholy: including Practical Remarks on those Diseases; together with Cases, and an Account of the Morbid Appearances on Dissection.* By John Haslam, late of Pembroke Hall, Cambridge, Member of the Royal College of Surgeons, and Apothecary to Bethlem Hospital. 8vo. pp. 345. Callow. The Second Edition, considerably enlarged.

AT first view we supposed, that this new edition of the 'Observations on Insanity,' published by the same author about ten years ago, was so materially enlarged and improved, that we should have been justified in treating it as an entirely new work; and knowing that Mr. Haslam had continued to enjoy the richest opportunities of observation in the department of pathology to which he has turned his attention, together with a peculiar facility, if we be not misinformed, of availing himself of the labours of all who had preceded him in the inquiry, of whatever age or country, we were not without hopes, that he had at length accomplished what we have been so long desirous to see, a satisfactory account of the phenomena of mental alienation, and a clear exposition of the modes of practice to be pursued in all its different varieties. It was not un-

reasonable to expect, that the resident medical officer of such an establishment as Bethlem Hospital, who had given earnest of his talents for investigation, and of his intention to prosecute the interesting inquiries which he had begun, should have succeeded in compiling a useful and truly practical work, and one far more valuable than any which have come from authors less favourably circumstanced. It was not unreasonable to expect, that a person of the least capacity and intelligence, who is compelled, in a manner, to make observations, and daily and hourly to subject to the test of experience the observations of others, should have been able, during the space of ten years, to accumulate such a mass of facts as would have given irresistible weight to his opinions, or, at least, have served to determine, with accuracy, the respective merits of every former writer on the subject. We were, therefore, not a little disappointed, and our readers will probably share in our regret and astonishment, to find, that Mr. Haslam, instead of rendering this service to science and humanity, should have been consuming his time in philological inquiries about the derivation of metaphysical terms, and in ransacking the *first folio* of Shakspeare, for quotations with which he might adorn his treatise; that the volume before us, though more than double the size of his former publication, contains very few additional cases, and not one additional practical remark which can be considered as very novel or very important. Let us not, however, be misunderstood: we are by no means inclined to undervalue Mr. Haslam's labours; we have always given him credit for the very material point which he has established by dissection with regard to the history of madness; and, though we can find no excuse for his indolence, we shall not, on that account, shut our ears to the information which he has to communicate, or abstain from those comments which the great interest of the subject may induce us to make on particular parts of his book.

From the first chapter, which treats of the definition of the disease, it appears, that the author has abandoned his former theory, which referred insanity to '*an incorrect association of familiar ideas, independent of the prejudices of education, always accompanied with implicit belief, and generally with either violent or depressing passions.*' In doing so, we think he has acted wisely, as such a definition, or, indeed, any concise definition, could convey but a very obscure and imperfect idea of the complaint; nor shall we quarrel with him for his attempt to explain the etymology of the word *madness*, which he supposes to be originally Gothic, and signifying *anger, rage*, [Mod.] It was formerly written with the *o*, as in the following passage,

> 'Yet saw I Modnesse laughing in his *rage*.'
>
> Chaucer, *Knight's Tale*.

This derivation appears to us to be confirmed by that of the Greek term μανία from ἐμάνην, the second aorist of the verb μάινομαι,

to rage, to be mad, and gives, on the whole, a satisfactory account of the origin of the term; but we cannot say so much for the explanation of the common phrase, *beside one's self,* which, Mr. Haslam thinks, 'most probably originated from the belief of possession by a devil, or evil spirit:' we would rather adopt the solution which was given of the synonymous Latin expression, by a man in whose age 'the belief of possession by devils' was not very prevalent; '*exiisse ex potestate* dicimus eos, qui *ecfrenati* feruntur aut libidine aut iracundia.—Qui igitur *exiisse ex potestate* dicuntur, idcirco dicuntur, quia non sunt in potestate mentis.' *Cic. Tusc. Disp.* iii. 5.

We now come to a specimen of our author's metaphysics, of which we are sorry that it is not in our power to speak very favourably, though we are willing to give him the merit of being somewhat more profound than the majority of writers on the subject of insanity. In order, however, that we may do no injustice, we shall quote Mr. H.'s own words.

'As far as I have observed respecting the human mind, (and I speak with great hesitation and diffidence), it does not possess all those powers and faculties with which the pride of man has thought proper to invest it. By our senses, we are enabled to become acquainted with objects, and we are capable of recollecting them in a greater or less degree; the rest appears to be merely a contrivance of language.

'If mind were actually capable of the operations attributed to it, and possessed those powers, it would necessarily have been able to create a language expressive of these powers and operations. But the fact is otherwise. The language, which characterizes mind and its operations, has been borrowed from external objects; for mind has no language peculiar to itself. A few instances will sufficiently illustrate this position. After having committed an offence, it is natural to say that the mind feels contrition and sorrow.

'Contrition is from *cum* and *tero,* to rub together, which cannot possibly have any thing to do with the operations of mind, which is incapable of rubbing its ideas or notions together. Contrition is a figurative expression, and may possibly mean the act of rubbing out the stain of vice, or wearing down by friction the prominences of sin.

'If we were to analyze the word sorrow, which is held to be a mental feeling, we should find it to be transferred from bodily sufferance: for the mind is incapable of creating a term correctly expressive of its state, and therefore it became necessary to borrow it from *soreness* of the body.—See *Mr. Tooke's Diversions of Purley,* p. 207, where *sore, sorry,* and *sorrow,* are clearly made out to be one and the same word.' p. 9—11.

Now, with regard to the first of these strictures, we would beg leave to remark, that, though Mr. Haslam is, in our opinion, perfectly correct in the assertion, that the human mind possesses by no means those multifarious powers, by which metaphysicians have contrived to obscure and perplex its study, yet he appears to us to have gone to an equally reprehensible extreme in denying to it faculties, on which we have always conceived its existence in a great degree to depend; and we were not a little surprised to find an author, whom, from his former publication, we held to be a sound believer

in the doctrine of *association*, forgetting to enumerate, in his intellectual theory, that remarkable principle by which one idea recalls another, and particular trains of thought produce their corresponding actions, and *vice versa*. In fact, unless we give a construction to Mr. H.'s words, of which they will not admit, his account of mind would be equally applicable to the assemblage of ideas which we express under this term, in all stages, and in all states,—to the crude and half developed understanding of the infant, and to the impaired and distorted intellect of the maniac. That mind has not been able to create a language peculiar to itself, is no proof that it does not possess peculiar attributes; for the attention of man, in those early periods of civilization in which language must have been first formed, being directed solely to the alleviation of his bodily wants, external objects and external actions were the first to attract notice, and to receive names; and it was not till he had made considerable advances in refinement, that the phenomena which pass within him began to be observed. These were accordingly characterized by the signs of those material objects, to which they were supposed to bear the greatest resemblance: hence the terms ἰδέα, *imago*, ψύχη, *anima*, *seele*, *soul*, and the more modern words, *impression*, *perception*, *reflection*, &c. But though this be unquestionably the origin of the greater part of the metaphysical terms now in use, it does not follow that some language peculiar to mind might not be formed, if, indeed, it did not already in part exist; for, whatever may be conjectured to have been the ancient meaning of such words, as to *feel*, to *think*, to *will*, &c. we defy any man, be his imagination ever so great, to apply them to material phenomena, in their proper acceptation. They are never so applied; Mr. Haslam, therefore, errs in saying, that 'mind has no language peculiar to itself.'

He has been still more unfortunate in his conjectures with regard to the metaphorical use of the term CONTRITION. We puzzled our heads for a long time in thinking where '*the prominences of sin*,' which our author supposes to be worn down by the act in question, could be situated, but in vain; till we luckily chanced to recollect Dr. Gall's system of craniology, and we were enabled to form some imperfect notion of the manner in which those protuberances of the cranium, which, according to Dr. G., mark the organs of 'our manifold sins and wickedness,' could be worn down, and planed, and polished, *ad libitum*. Not having the good fortune, however, to rank among the converts to that system, we cannot consistently admit this ingenious application of the doctrine which it teaches; we will, therefore, though without those pretensions to etymological skill which Mr. Haslam is said to possess, hazard another, and, in our opinion, more obvious conjecture respecting the use of this stubborn word in reference to an emotion of the mind. We suppose the term *contrition* to have been first applied in this manner, from observing the actions of persons labouring under violent grief, who

are apt to *wring* their hands together, 'manibus inter se usque ad articulorum strepitus *contritis*;' (Petron. 17.) and the supposition seems, in some degree, countenanced by the phrases we employ to describe the conduct of such persons: we say, for instance, that they *shew contrition*, or *give signs of contrition*; *i. e.* they shew, or give signs of *wringing* [subaudit] hands, &c.——To the derivation of the word SORROW, by Mr. Tooke, we have no objection to offer.

In the *second* chapter, which is allotted to a description of the symptoms, we have observed no alterations or improvements of any consequence. The *third* contains thirty-seven 'cases, with the appearance on dissection,' the first twenty-nine of which are the same as those inserted in the former edition; the remaining eight all serve to prove the accuracy of Mr. Haslam's preceding observations with regard to the existence of an organic disease of the brain, in cases of confirmed mania. It were, indeed, to be wished, that the dissections had been performed with greater minuteness, and that every part of the organ in question had been examined with the most scrupulous attention. We impute no particular blame to Mr. H., for the fault is common to almost all the surgeons and anatomists of this country, who are too apt to be satisfied with the grosser marks of disease, and to neglect, on such occasions, to pursue that patient method of research, which has led to so many important discoveries among our continental brethren. If the thirty-seven heads of insane persons which fell to our author's lot to dissect, had been examined by a Cuvier or a Gall, (we here speak of the latter as an anatomist merely), we are strongly inclined to believe, that they would have discovered something more than Mr. Haslam has been able to find out. The precise functions of the brain they would not have ascertained; but they might, perhaps, have made some approach to a determination of the relative uses of its different parts; or, at least, have succeeded in tracing the communication of the disease from one part to another. We proceed to give a short account of the eight additional cases which have been alluded to.

The first is, that of a man, about fifty-five years of age, who had become furiously mad from repeated intoxication. After his admission into the hospital, he behaved with propriety, and appeared to be in a state of recovery; but in a few months he was seized with diarrhœa, which terminated in dysentery and death. On opening the cranium, a considerable quantity of water was found between the membranes of the brain, and the tunica arachnoidea was of a milky whiteness, as Mr. H. had so often before observed to be the case in maniacal patients: the infundibulum was very large; and from the lateral ventricles, which were much distended, the prodigious quantity of *eight* ounces of a pellucid fluid was collected. This fluid Mr. H. submitted to a chemical examination: it was not coagulable by heat; the tincture of galls produced in it a white precipitate, indicative of the presence of animal matter; a similar pre-

cipitate was found to take place on the addition of lime water, which, as it was redissolved, without effervescence, by muriatic acid, would prove the presence of phosphoric acid: the solution of the sulphat of copper gave a blue tinge to the fluid, shewing the existence of ammonia or some of its compounds.—The second of these new cases is remarkable for disproving completely a dogma of the late Mr. Hunter's, which has been repeated and maintained with great pertinacity, by some of his bigotted adherents, we mean the doctrine, 'that no two diseases can exist in the human body at one and the same time.' A woman, aged thirty, whose mother and sister had been insane, was attacked with violent mania after pregnancy. She expected to be liberated from her confinement at the end of a year; but being disappointed in this hope, she fell into a decline, and died of *phthisis pulmonalis,* in about eighteen months after her admission into the hospital; but 'during the whole period of her bodily disease, she would never acknowledge herself to be ill, and *the violence of her mental disorder was unabated.*' The membranes of the brain were found, on dissection, to be inflamed, and the ventricles appeared enlarged, though they contained scarcely any fluid. The lungs do not appear to have been examined. The *third* case we pass over, as containing nothing very striking.—Case xxxiii. is that of a patient who had been many years on the incurable list, though in the hospital he appeared to be in his senses, and he was only affected with insanity on returning to his family. He died in a fit apparently apoplectic. On dissection, there appeared to have been a great determination of blood to the head; but the brain, in other respects, was natural.—The next case (that of a melancholy patient) exhibited a similar determination of blood, and marks of the pia mater being highly inflamed. 'On the inferior part of the middle lobe of the brain, there was a gangrene of considerable extent, together with a quantity of very fœtid purulent matter. This,' adds Mr. H., 'is the only instance of a gangrenous state of the brain which has fallen under my observation.'—In case xxxv. where the disorder had been distinguished by symptoms of great violence, a large collection of water was found between the dura mater and tunica arachnoidea; 'on the posterior lobe of the cerebrum there was a large quantity of a milky fluid between the tunica arachnoidea and pia mater, and in that place there was a depression or cavity formed in the convolutions of the brain.—The dura mater, in case xxxvi., where furious mania also existed, was easily separable from the skull; on puncturing it, a quantity of blood flowed from the opening, and a considerable extravasation of this fluid had, it appeared, taken place between the different membranes of the brain; 'but the most remarkable circumstance was, that the tunica arachnoidea was so thickened, that it exceeded the dura mater, on an accurate comparison.' The last of these cases, is one, where the most violent mania existed for a long period of years, alternating with

short intervals of melancholic languor. The membranes of the brain shewed appearances of inflammation, and a quantity of limpid water was found between them; the medullary substance was full of bloody points; and the lateral ventricles contained about four ounces of water; the internal carotid arteries were much enlarged, and did not collapse when divided; the consistence of the brain was doughy.

Three cases of insane children are detailed by our author in chapter iv. The first, was that of a girl, born of sane parents, who remained in perfect health till she was about two years and a half old, when she was inoculated for the small-pox: the disease was preceded by severe convulsions, and attended with delirium during its course. She had previously been able to articulate distinctly; but, after the termination of the disorder, she never attempted to imitate any significant sound, and seemed to have forgotten all her former acquisitions. She remained in the same state during the three years that Mr. H. had an opportunity of observing her.——The boy, who forms the subject of the following case, was of a sickly habit from his birth; he suffered much from the measles, when about a year old, and afterwards had a mild sort of inoculated small-pox; there seemed to be a great tardiness in the developement of his physical and moral faculties; he was unable to go alone till about two years and a half old, and had arrived at his fourth year before he began to speak. When about seven, he was admitted into the hospital, and remained in it about three months, during which time he made some slight progress in language, but resisted all attempts to teach him the letters of the alphabet. Mr. H. saw him again when he had completed his thirteenth year. He had grown very tall; but his habits, his understanding, and his speech, were almost equally childish as before; though his memory was so far improved as to enable him to whistle several tunes correctly, yet he had not learnt to read, and always spoke of himself in the third person, and in disjointed phrases. It ought to have been before observed, that both the boy and the girl just mentioned, distinguished themselves by their mischievous disposition.—The concluding case appears to us, to be that of a spoiled child, who was sent for advice to Mr. H. when he was about ten years of age: he had been indulged to excess in his early youth, and never corrected for his faults: when our author saw him, he was remarkable chiefly for his antipathy to china and every thing fragile which came within his approach, and for his cruelty to those animals whom he had learned to master; his memory was very retentive, and his appearance healthy.

The causes of insanity come next to be considered. In this new edition, Mr. H. has inserted a number of examples to prove that insanity is frequently an hereditary disease; from which he thinks himself justified in laying down as a principle, what few will be inclined to dispute, 'that where one of the parents have been insane, it is more than probable that the offspring will be similarly affected.'

He is disposed to reject entirely the opinion, that maniacs are affected by lunar influence. That the doctrine in question has been carried a great deal too far, we most readily admit; but when we consider the respectable authorities which have been adduced in its favour, and when we advert to the evidence which we have quoted in a preceding article,* to prove that certain positions of the sun and moon have a considerable effect in modifying febrile disorders, we must have some more accurate observations than those of Mr. H. before we can recant our belief; at least some better explanation of a fact, which, after all, our author seems inclined to acknowledge, than that it is merely owing to the greater quantity of light which we enjoy at the periods of full moon, that patients labouring under delirium are more watchful and turbulent at such times.

Of the proximate cause of insanity Mr. Haslam professes to know nothing. He thinks, however, that it appears from the dissections which he has detailed, 'that madness has always been connected with disease of the brain and membranes.' A little further on he ventures to affirm, 'that the *immediate* cause of the disease probably *consists in a morbid affection of the brain:* the supposition of a *disease of the mind*, or *a disease of ideas*, he ridicules throughout his book.—'Let us imagine,' says he, '*a disease of ideas*. In what manner are we to effect a cure? To this subtle spirit we can apply no medicines. Though so refined as to elude the force of material remedies, some may however think, that it may be reasoned with. The good effects of exhibiting logic as a remedy for madness, must be sufficiently known to every one who has conversed with insane persons, and must be considered as time very injudiciously employed: speaking more gravely, it will readily be acknowledged, by persons acquainted with the disease, that, if insanity be a disease of ideas, we can possess no corporeal remedies for it; and that an endeavour to convince madmen of their errors, by reasoning, is folly in those who attempt it, since there is always in madness the firmest conviction of the truth of what is false, and which the clearest and most circumstantial evidence cannot remove.' p. 241—2.

To these arguments we reply, that, as the phenomena of mind, and the phenomena of which we are enabled to take cognizance by our external senses, are essentially different and distinct; and as mania is known to us only as a disease of ideas; it can never be admitted, that what is termed the *proximate* cause of this disorder 'consists in a morbid *affection* of the brain,' such an affection at least as Mr. Haslam seems to suppose, when he hints at the probability of discovering its nature by 'a strict attention to the particular appearances which morbid states of this organ may present.' Now, we are firmly convinced, (and we will stake our reputation as meta-

* Review of Balfour on Sol-Lunar Influence.

physicians on the assertion), that the true proximate cause of insanity, or, in other words, that which constitutes the disease, can never be ascertained but by 'a strict attention' on the part of the patient to the state of his own mind. He is generally incapable of this attention; and therefore it is probable, that we never shall have any precise information on the subject. Reasoning from the scheme of materialism, if Mr. Haslam had said, that the disease consisted in a morbid or irregular *action* of the brain, he would have approached nearer to the truth. Such a supposition seems confirmed by the history of the disease, and is countenanced even by those very dissections on which Mr. H. lays so much stress: for it was only in those cases where the insanity was of long standing, and marked by symptoms of peculiar violence, that the brain was found extensively injured; while in those where the complaint was slight and occasional, there was no common appearance, except, perhaps, an increased determination of blood. Such a supposition, too, is supported by the temporary madness which is produced by intoxication, and which we may presume to arise from the unusual flow of blood to the head; and still more clearly by the madness which is occasioned by breathing the nitrous oxide, where the vivid and rapid flow of ideas which present themselves to the mind, and the frantic actions to which they sometimes impel, evidently proceed from the new and unusual stimulus that is given to the brain, by the nitrous oxide combined with the blood. The diseased state to which our author alludes, we conceive, may be either the cause or the effect of the disorder; and Mr. H. himself has adduced sufficient evidence to prove that the latter is, at least, very often the case. We will only refer him to the account which he has given of persons who had become insane in consequence of domestic misfortunes, and ask him, if, in them, he does not suppose that 'a disease of ideas' made its appearance before the organic lesion of the brain?

The moral treatment of insanity presents such an ample field for disquisition, that we are almost afraid to touch upon it. If, however, Mr. Haslam had shewn greater talents for that 'logic' which he affects to despise, and if he had not so completely refuted himself in the latter part of his book, by the instructions which he has given for working upon the fears and the hopes, the affections and the passions, of insane patients, we should have felt it our duty to expose, at full length, the sophistry and futility of the above specimens of his reasoning. But what are we to think of an author, who, a few pages after he had been indulging himself in such sarcasms, can write as follows:

'We have a number of patients in Bethlem Hospital, whose ideas are in the most disordered state, who yet act, upon ordinary occasions, with great steadiness and propriety, and are capable of being trusted to considerable extent. A fact of such importance in the history of the human mind *might lead us to hope, that by superintending different habits of thinking, the irregular associations would be corrected.*

'It is impossible to effect this suddenly, or by reasoning, for madmen can never be convinced of the folly of their opinions.—The more frequently these opinions are recurred to, under a conviction of their truth, the deeper they subside in their mind, and become more obstinately entangled: *the object should therefore be, to prevent such occurrence, by occupying the mind on different subjects, and thus* DIVERTING IT FROM THE FAVOURITE AND ACCUSTOMED TRAIN OF IDEAS?' p. 299—300.

If these are not directions for the cure of '*a disease of* IDEAS,' and nothing else, our eyes must strangely deceive us.

To the chapter 'On the probable Event of the Disease,' the author has made very few additions. We learn, however, from it one important fact, which deserves to be generally known, and which we give Mr. H. credit for stating in so bold and manly a manner. After some general observations on the influence of different religious sects on the mind, and on devotional madness, he proceeds:

'The difficulty of curing this species of madness will be readily explained from the consideration, that the whole of their doctrine is a base system of delusion, rivetted on the mind by terror and despair; and there is also good reason to suppose that they frequently contrive, by the grace of cordials, to fix the waverings of belief, and thus endeavour to dispel the gloom and dejection which these hallucinations infallibly excite.

'Although the faction of faith will owe me no kindness for the disclosure of these opinions, yet it would be ungrateful were I to shrink from the avowal of my obligations to methodism, *for the supply of those numerous cases which has constituted my experience of this wretched calamity.*' p. 266—7.

Let the disciples and the advocates of methodism read this and tremble.

Of the alterations in the strictly practical part of the book, we cannot, as we have already hinted, speak in terms of high commendation. It contains, in fact, nothing new, except some remarks on the diet of maniacal patients, an anathema against the *spouting boat*, and the description of an instrument less injurious to the teeth, which Mr. H. has been in the habit of using in its place; to which we may add a few bitter invectives against Dr. Cox, for his practice of swinging and deceiving his patients. But a particular mode of treatment can only be refuted by shewing its inefficacy or injurious effects; and if Mr. H.'s experience does not tally with that of other writers, he should be able to prove that he is in the right, by facts, and to defend his opinions by some more powerful weapons than those of ridicule.

We have now gone through the task of reviewing the 'Observations on Madness.' If we have indulged in some freedom of remark, it has been because we were impressed with a deep sense of the importance of the subject, and because it is our determination to give no quarter to erroneous notions, when they involve the vital interests of mankind. If we have weighed in a nice balance the merits of Mr. Haslam, it has been in order that we might point out

to our readers some of the qualifications which are indispensably necessary in those who venture to treat of this disease; but which, unfortunately, very few possess. With respect to the principal charge which we have preferred against him, that of culpable indolence, we are satisfied, that if he be gifted with the candour which we are willing to ascribe to him, he will bow with humility to the reproof, and frankly exclaim, 'There they have hit me!'

ART. LV. *An Essay on the Diseases incidental to Europeans in Hot Climates, with the Method of preventing their Fatal Consequences.* By James Lind, M. D., &c. &c. late Physician to the Royal Hospital at Haslar, near Portsmouth. *To which is added, an Appendix concerning Intermittent Fevers; and a simple and easy way to render sea water fresh, and to prevent a scarcity of provisions in long voyages at sea.* Sixth Edition. 8vo. pp. 402. Richardsons.

WE can add nothing, by any eulogium that we can write, to the distinguished character which Dr. Lind's works have acquired for him, among those who justly estimate the value of original observation, pursued with unremitting industry, and with a singular degree of sagacity and acuteness, and recorded with unaffected perspicuity. It is sufficient to announce this new edition of one of his volumes; particularly as no alteration appears to have been made, which might require comment.

ART. LVI. *Observations on the Diseases of the Army in Jamaica, and on the best means of preserving the Health of Europeans in that Climate. Also, Observations on the Hepatitis of the East Indies.* By John Hunter, M. D., F. R. S., &c. 8vo. pp. 315. Third Edition. Payne.

THIS is a republication of the second edition of Dr. Hunter's work, including the appendix to that edition, which contained some illustrations and additions to the original publication. It is one of those standard works, which merits a place on the same shelf with the volumes of Lind, and Pringle, and Cleghorn; containing, like them, the observations of a judicious and intelligent practitioner, uninfluenced by hypothesis, and detailed with much perspicuity and precision. Dr. H.'s researches into the causes of the 'dry belly-ache' of the West Indies, which fully confirm Sir George Baker's suggestion, that this species of colic owes its origin, in every form, to the

poison of lead, were peculiarly satisfactory: and his practical remarks on every disease, which fell under his notice, are rational and instructive, and have been confirmed by every subsequent writer on the diseases of the West Indian colonies. We have to lament, that, since this edition appeared, the author's exertions for the advancement of his profession have been terminated by death.

ART. LVII. *First Lines of the Practice of Physic.* By William Cullen, M. D., late Professor of the Practice of Physic in the University of Edinburgh, &c. &c. A new Edition, carefully compared with the Author's most correct Edition. 2 vols. 8vo. Edinburgh. Bell & Bradfute, &c.

WE have here a neat edition of an elegant and classical work, purged of the notes, by which it was once disfigured by Dr. Rotheram.

ART. LVIII. *The Medical Guide, for the Use of Families and young Practitioners in Medicine and Surgery; being a Practical Treatise on the Causes, Prevention, Cure, &c. of the Diseases incident to the Human Frame; exhibiting the latest and most important Discoveries in Medicine, Pharmacy, &c.* In Two Parts. By Richard Reece, M. D., Member of the Royal College of Surgeons, &c. Fifth Edition, considerably enlarged and improved. 8vo. pp. 558. Longman & Co.

TO this publication we have already had occasion to allude, as forming the ground-work of the 'Dictionary of Domestic Medicine' by the same author, and as supplying the chief materials for its construction. To prepare, indeed, the one from the other, seems to have been a very simple labour; nothing more being necessary than to intersperse the medical articles, which are found in the 'Guide,' for the most part ranged in an alphabetical order, with those choice morsels of physiological and culinary learning, which we have before described as constituting the chief ornaments of the 'Dictionary.' These additions have rendered the book more bulky and inconvenient, without adding any thing to its utility. The more, therefore, we consider the history of its formation, the more we are satisfied of the justness of our censures, and the more we are convinced, that the performance in question has been compiled principally for the purpose, 'ut simpliciores ad pecuniam dilapidandam perducantur.'

In the preface to the present volume, several passages occur, which, without much straining, may be resolved into an explicit

avowal, that the chief object of its publication was to promote the sale of Dr. R.'s *family medicine chest*, and to make known his *Chemical and Medical Hall*. We doubt not that these medicine-chests are very well contrived, and we have no objection to send our prescriptions to be compounded at the inventor's shop; but we wish that Dr. Reece had advertised himself into notice in some other way than by writing books on *Domestic Medicine*, which, even when compiled with the greatest judgment and care, are, to say the least of them, of very doubtful tendency. Our critique of the 'Practical Dictionary' has led us to anticipate several remarks on the subject, which we might have been inclined to offer in this place; but there is one consideration to which we have not adverted in direct terms, and to which we are anxious to call the attention of our readers, as being, in our estimation, completely decisive of the question. The Medical Guide, as appears from the title, is intended not only for family use, but to assist 'young practitioners' in the exercise of their profession. Now, we have always understood, (and, we believe, that we are not singular in the opinion) that the most essential qualification which the young beginner can possess, is a correct knowledge of the distinguishing symptoms of disease, and, next to that, the talent of foreseeing its probable course and termination, according to the particular circumstances of the case. Accordingly, in looking into the second part of Dr. R.'s book, which treats of different disorders, we expected to have found the most full and precise instructions for forming the *diagnosis* and *prognosis* of each; especially as such instructions must be indispensably necessary to prevent his unlearned readers from committing the most awkward and fatal mistakes, by confounding one complaint with another, and regulating their practice by their erroneous views of the disorder. Instead of meeting with this information, we were amazed to find, that, with one or two slight exceptions, the diseases were all discussed under the heads '*Symptoms*, *Causes*, *Treatment*,' and that little or nothing was said which could enable a person unacquainted with medicine, to recognise the presence, or ascertain the comparative risk, of some of the most serious maladies to which the human frame is liable. When we considered this deficiency; when we reflected on the difficulties which so often occur to perplex and mislead the most experienced practitioners in forming their judgment of disease; we could not help shuddering at the mischiefs which might flow from the rash and injudicious application of the precepts contained in the Medical Guide, by the ignorant and the unwary.

Though the work now before us has somewhat greater claims to consistency than the Practical Dictionary, we are sorry to say, that, in other respects, it is equally incorrect and imperfect. A comparatively short space is allotted to the history and cure of several very important complaints, such as Typhous and Intermittent Fever,

Inflammation of the Lungs, &c., and no account whatever is to be found of many others, such as Inflammation of the Stomach, of the Liver, &c.; while very full articles are given under the heads, *Cow Pox*, *Cancer*, *Nervous Diseases*, &c., all serving to display the author's great powers of reasoning, and his talent for learned illustration. His rivals in the art of book-making are, throughout the volume, treated with very little complacency; and he has, in particular, many sly hits at Dr. Buchan, whose work is abused (let the reader judge with what admirable grace), as '*a compilation* from the older writers:' but what most astonished us, was a note to the section on *Bilious Complaints*, in which Dr. Reece informs us, that 'even the works on the Diseases of the Liver, by Dr. Saunders, Dr. Stone, and others, *he regards* as empirical!' As he has not been so kind as to define the meaning of the term *empirical*, we know not whether he uses it in the common acceptation, or in the sense in which that profound reasoner Dr. Uwins has adopted it;* but we cannot help suspecting, from several passages of his work, that he is under considerable obligations to the writers, whom he affects thus to despise, and that the above and other similar censures were inserted, in order to cover the author's want of originality, and his own '*empirical* inconformity,' if we may borrow the elegant phraseology of the writer just alluded to:—

> 'So modern 'pothecaries, taught the art,
> By doctors' bills, to play the doctor's part,
> Bold in the practice of mistaken rules,
> Prescribe, apply, and call their masters fools.'

The enlarged edition of the article *Cow Pox*, with which we are presented, shews, that Dr. R. continues to maintain the character of an antivaccinist with much the same consistency and regard to experience and truth, as his friends, the Catons, the Lipscombes, and the Stuarts. After the full account which has been given of the conduct of these gentlemen, at the commencement of this volume, it would be superfluous to enter into any fresh disquisition on the subject. The following short extracts, when contrasted with those delectable samples of Dr. Moseley's candour and moderation, which we have before produced,† will enable the reader to judge of the degree of credit which is due to Dr. R.'s asseverations respecting the inefficacy of the cow-pox.

'Instead of meeting the question *fairly*, and discussing the subject with *temper* and *liberality*, they (the supporters of vaccination) are determined to oppose even *matters of fact*.'—'The opponents of vaccination are, I firmly believe, actuated by the most laudable motives; they have prosecuted the discussion *with liberality and temper, and altogether in a manner that entitles them to the thanks of the country!*'

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* See our Review of Uwins, p. 46.

† See the Review of Pamphlets on Vaccination, p. 25—28.

On the whole, we have found much to blame, and little to commend, in the execution of the work under consideration. We have no desire to be harsh, or to hurt any man's feelings: but when the public health is concerned, it becomes a paramount duty, to express our opinions in the most free and unreserved manner; and, thinking as we do of the performance in question, we must declare our belief, that it is calculated to do much harm, and cannot with safety be trusted in the hands of the community.

ART. LIX. *A. Corn. Celsi de Medicina Libri Octo* quibus accedunt Indices Capitum Autorum et Rerum ex Recensione Leonardi Targæ. 8vo. Edinburgi, Typis Gulielmi Blackwood.

THIS edition of the Roman classic does great credit to the Edinburgh press, and has claims to public favour, as being not only more neat, but also more correct and useful, than any other with which we are acquainted. Some years ago the editor made a journey through Italy, on purpose to collate the different MSS. of his author, particularly those preserved in the Medicean library, and in that of the Vatican; and by their assistance he has been enabled to restore the true reading of several altered passages. He has followed the plan of Van der Linden in dividing the different books of the work into chapters and sections; though he found that, in the *Codex Mediceus*, which is the most ancient MS. of Celsus in existence, the books were all written in a continued form, 'ex quo colligi posse videtur,' he observes, 'illam antiquam non esse. Ea certe, ut plerumque non sit inepta, à veterum scriptorum ingenio maxime abhorret, atque adeo ipsius Celsi, cujus ea non minima laus, quod res diversas ac suapte natura separatas singulari artificio conjunxerit.' (*Pref.* iv.) But the division above mentioned, however repugnant to ancient practice, seemed necessary, for the sake of reference to the Lindenian edition, which is at present in almost universal use. The Index, subjoined at the end of the volume, is extremely complete, and in some measure calculated to serve the purposes of a glossary.

ART. LX. *An Account of the Diseases most incident to Children: to which is added, an Essay on Nursing, with a particular View to Infants brought up by Hand. Also, a short Account of the Dispensary for the Infant Poor.* By the late George Armstrong, M. D. A new Edition, with many additional Notes, by A. P. Buchan, M. D. of the Royal College of Physicians, London. Small 8vo. pp. 242. Cadell and Davies.

DR. BUCHAN has performed a very useful service to the public, by superintending a new edition of Dr. Armstrong's Account of the Diseases of Children; which, though not a brilliant work, contains much good sense, and some judicious observations, the result of extensive practice.

To this edition Dr. B. has prefixed a well-written introduction, which may be perused with advantage by all who are concerned in the management of children; yet we think that he allows rather too much latitude to what is called the hardening plan of treatment, and must express our most unqualified disapprobation of the *sang froid* with which he contemplates the advantages that may accrue to posterity, from the premature death of those puny and unhealthy infants, who may perish in this attempt to render the race of men more robust and hardy. After having stated, that, by repeatedly sowing the seeds of plants, indigenous in hot climates, in cold countries, we at length obtain specimens, capable of bearing the rigour of the latter, Dr. Buchan observes,

'If by a cautiously conducted exposure to the open air, combined with regular exercise, moderate clothing, and the use of the temperate bath, we should enable the offspring of delicate persons to sustain the rigours of a northern winter, and thus, even in a succession of generations, to wear out the disposition to scrofula, it would be a triumph to the art of medicine; for, by the adoption of appropriate means, we might then hope also to be able to destroy the propensity to other hereditary diseases. *Even by the death of the individuals who might perish in the experiment, the chance of propagating a diseased offspring would be considerably diminished.* Introd. p. xx—xii.

Considerable difference in opinion exists among those who direct the management of children, as to exposure to cold. While one person recommends the use of the cold air as a bracer, under all circumstances, and in all vicissitudes of weather; another as strenuously opposes this system, and insists upon the propriety of fostering infants in warm clothing and temperate apartments. The truth, as usual, lies between the two extremes. When children are old enough to *run about* in the open air, and are thus enabled to sustain the animal temperature by exercise, we will not merely say that they suffer no inconvenience, but acknowledge that they really gain great advantages to their health, strength, and spirits, by such

an exposure; particularly if in very cold weather, or during the continuance of keen north-easterly winds, attention be paid to cover them with some additional *woollen* clothing: but the very great mortality amongst infants, in the winter and spring months, from croup, peripneumony, and other inflammatory affections, (the consequence of cold,) clearly indicates the mischief and danger of thus exposing children, who are not yet capable of sufficient corporeal activity to counteract its influence.

Of the children born in London, it has been ascertained that a third part die before they reach the age of two years; and, from much experience, we have no hesitation in asserting, that, excepting such as perish for want of the breast, the great majority of these deaths is attributable to the indiscreet manner in which children are carried out in extreme cold weather; and these, not only the delicate offspring of unhealthy and scrofulous parents, but the robust and hearty children of the strongest and most healthy individuals.

The editor very properly animadverts on a prevalent error, in the treatment of children, which originates from a desire in the parents to produce an early developement of the intellectual faculties; and he remarks, that the instinctive propensity to activity in children, as in the young of all other animals, indicates the importance of not depriving them of exercise too soon, for the sake of instruction; he even attributes the occurrence of hydrocephalus to the too early application of mind. However questionable this point may be, the advantages of a full evolution of the corporeal powers, from a free and unrestrained exercise, in the early years of life, must be abundantly obvious.

Dr. Buchan regrets, in common with all, who have much opportunity of seeing the management of infants and children, that the gratification of the palate is so often made the incentive to proper conduct during the more early years of life. 'An habitual craving for food,' he observes, 'is thus frequently implanted, which is in more mature years with difficulty subdued; and an indulgence even in fermented liquors and stimulating aliment, too often at an early period injures the constitution, and renders it unable to struggle with those diseases which infancy can hardly be expected wholly to escape. To this early stimulating diet is to be attributed that flush of apparent health, which it frequently surprises a stranger to behold in the cheeks of children in the metropolis, but which is as far from betokening a real sanity of constitution, as the rosy hue of the habitual inebriate; and both are equally unfit to contend with a serious attack of disease.' p. xxvi—xxvii.

Physicians formerly complained, that the diseases of infancy were particularly difficult to treat, on account of the inability of the patients to describe their symptoms and feelings, and were therefore

unwilling to take the trouble of attending to them. Harris says, speaking of this opinion, '*Quapropter medici non pauci nominis amplissimi palam sunt nobis aliquando professi, se pueris febricitantibus, ac præsertim recens natis visendis advocatos, invita tamen Minervâ, tanquam ad mysterium nescio quod evolvendum, aut insanabilem aliquem affectum sanandum, plumbeis pedibus accedere solitos.*' It is, however, certain, that this difficulty is more imaginary than real; and, as Dr. Buchan justly observes, 'persons actually occupied in the practice of medicine must be aware, that it is often no less difficult to sift the truth out of the figurative and theoretical language, in which adults are apt to clothe their feelings, than it is to judge of the unadulterated expressions of distress, exhibited by an infant suffering from disease.' p. xxvii. Dr. B. with great propriety insists upon the necessity of examining the state of the various excretions, from which much necessary information is always to be derived.

It seems lately to have been a fashion with some authors to decry the use of medicines during the state of infancy; and one ingenious physician hazards the assertion, that of the infants who die in the earlier months of their existence, *the greater part undoubtedly* consist of those who have sunk under the oppression of *pharmaceutical filth*. Our opinion, formed not hastily, but from an experience of many years, is directly the reverse: we feel confident, that medical advice, if applied for sufficiently early, would often save life: the great fault is, that advice and proper medicines are not sought for until they are incapable of influencing the disease, or until ignorance or empiricism has done irremediable injury.

The diseases principally treated of are, inward fits—the thrush—watery gripes—convulsions—hydrocephalus internus (with additional cases by the editor)—teething, and hectic fever during the time of teething—tooth rash—tinea—intertrigo (including what has lately been called the erysipelas infantilis)—hooping cough—rickets—scrofula—worms—and some others of less moment: the book closes with rules to be observed in the nursing children, (which we object to, because they rather encourage the dangerous practice of bringing children up by the hand); and, lastly, an account of the author's dispensary for the infant poor, with a proposal, on the part of the editor, for its re-establishment.

We have already occupied a larger portion of our review, than perhaps our readers may think necessary for the fourth edition of any work; yet there is one passage which we cannot forbear from copying, because it contains a fact of great moment, which ought to be impressed upon the mind of every parent, and of every person having the care of children. If children are ever *drugged* into disease or to death, as has been asserted, it is under a suspicion that they have WORMS; and it is hardly more common to

suspect this, than to purchase some pompous quack medicine to remove them. These medicines are generally easy to take, and always powerful and rough in their operation, so that they frequently abrade and expel the mucus of the bowels, which, appearing in lumps among the watery excretions, is dignified with the appellation of bags of worms. Before such violent and sometimes dangerous medicines are had recourse to, it ought to be clearly ascertained that worms are the occasion of the disorder; and Dr. Armstrong's experience justifies us in saying, that the symptoms vulgarly attributed to worms are rarely occasioned by them, but are produced by other causes of irritation in the bowels, by morbid secretions, indigested aliment, &c. He states his opinion in these strong terms—

'Nay, I may venture to say, that of the whole number of children brought to the dispensary, who from the apparent symptoms are supposed to be troubled with worms, there is not one in ten that has ever voided any, nor do any make their appearance during the whole time of the cure.' p. 168.

The fact, here established, speaks so clearly for itself, that we shall offer no comment upon it: it is much to be wished that these σκωληκοφοβοι, or worm-dreaders, could by any means be convinced of its truth; it would save many a griping pain to their poor infants.

The editor has occasionally added notes to the author's text, which are generally pertinent and instructive; yet we cannot pass without notice an oversight committed in p. 37, respecting the dose of volatile alkali, recommended to be administered in acidities of the stomach—the formula is as follows:

℞. Lactis Amygdalæ ℥i
Ammoniæ præparatæ ʒi
Syrupi Papav. albi ʒij
A tea-spoonful to be taken every two hours.

Now if the tea-spoon should be capable of containing a drachm of liquid, and most modern tea-spoons hold more, the child would at each dose swallow six grains of the volatile alkali!

ART. LXI. *New Medical Compendium, for the Use of Families, &c. considerably enlarged and improved.* By D. Cox, Chemist to His Majesty. 12mo. pp. 416. Sold at the Royal Elaboratory, Gloucester; and by Longman & Co. London.

THIS compilation seems to have been effected with considerable care, judgment, and industry, and may prove useful to those who have some previous knowledge of medicine. An alphabetical ar-

rangement would have rendered it more convenient: as it is, we are obliged to look first into the index to know the page where we are to find the article we are in quest of. In this edition, several additions are made, though we still notice some deficiencies.—The compiler has appended a list of GENUINE *preparations, newly invented medical pocket books, aromatic and medicinal pearls*, &c. &c. which may be had at the Royal Elaboratory of his Majesty's Chemist at Gloucester; with the usual caution, that all articles, &c. made and sold by him, are signed or sealed D. Cox. And whereas, 'it having been reported, that D. C. confines his attention to chemistry alone, he begs leave to contradict so *prejudicial* a statement, by informing the public, that he continues the practice of medicine as usual!'

ART. LXII. *Observations on the Diseases which prevail in long Voyages to Hot Countries, particularly on those in the East Indies; and on the same Diseases as they appear in Great Britain.* By John Clarke, M. D., Physician to the Infirmary, and Dispensary, at Newcastle, &c. &c. Third Edition, corrected. 8vo. pp. 384. Murray.

THIS is a posthumous edition of Dr. Clarke's work, prepared for the press by the author, who had enjoyed many valuable opportunities of adding to his materials, since the first edition was published in 1773; having been, for many years past, engaged in extensive practice in a large provincial town, and consequently enabled to compare diseases affecting people of very opposite conditions, and in very different situations. The result of his observations in various parts of the globe is, 'that diseases in every climate are respectively the same; and, when attended with danger or malignity, are only to be subdued by the same treatment.' This remark, however, appears to us too general; for, although it may be true, that in every climate where the habits of men are similar, they will be subject to like diseases; yet these will unquestionably be much influenced by climate, by food, and by temperature; whilst the treatment cannot be wholly independent of such causes.

We meet with several additional chapters in the present edition. The first of these contains a general account of the weather and diseases, in a voyage to Madras and China in 1771, and in returning to England in 1772. The most remarkable incident which occurred during the voyage, was an eclipse of the moon, which gave the author an opportunity of observing its influence on some convalescents: but he could not perceive any alteration in their condition; and he paid great attention to it, because Dr. Lind on a similar occasion had witnessed very violent effects.

The fifth chapter gives us an account of the manner in which Europeans live in the East Indies; and when we inform our readers that it consists only of two pages, we think that they will not accuse Dr. C. of unnecessary amplification. All that we learn from him upon this subject is, that our Eastern friends 'carry luxury to a greater height,' but in other respects 'live much in the same way as they do in their own countries.'—'A generous, but moderate use of wine is conducive to health, and is useful in preventing diseases; and it is, indeed, generally observed all over India, that the people whose circumstances enable them to drink claret, enjoy the greatest immunity from sickness. Great errors seem to be committed in drinking too much, and in eating luxurious meals of animal food, served up with pickles, rich sauces, and dressed in such a manner as to encourage too much repletion.' We wish that our author had bestowed more attention upon this subject, which interests a very large class of people. It is not now a matter of doubt, that in a climate where the heat alone frequently deranges the secretion of bile; where it is impossible to take much exercise without suffering; that indulgence in the pleasures of the table is fatal to numbers of Europeans. The natives, who live chiefly upon rice, and whose beverage is water, attain longevity; while those of our countrymen who happen to escape alive, and return to display their wealth, and indulge in their luxurious habits, seldom enjoy that happiness and serenity in the evening of life, for which they have sacrificed their early connexions and wasted their youth: if they are not assailed by liver and stomach complaints, they are preyed upon by that monster of the imagination, hypochondriasis, which converts their palaces and their parks into prisons and wildernesses, and at length drives the unhappy wretches from the society of men; and disease or suicide concludes the scene.

In the second chapter of Part II. we find some interesting observations upon the present mode of practice in fevers. The author combats the notion, that it is unsafe to give bark in continued fever, till great debility or symptoms of putrescency appear: he even asserts, that if it is delayed so long, 'it will not only happen that the patient is incapable of taking it in proper doses; but that, by this time, such dangerous symptoms supervene, such as congestions to the head, and other viscera, which will render the effects of the bark, even suppose the patient's stomach be able to retain it in the most liberal manner, extremely uncertain.'

Dr. C. formerly published on this subject, since which, (from the year 1770 to 1791), he informs us, that he has 'attended about thirteen hundred patients in all the varieties of continued fever,' and does not remember that above four cases came under his care where the medicine failed, when it was given *early*, and regularly persevered in; and where it did fail, it was in cases where he was not called in till the patient was in that state of the disease, when

bark is usually recommended. The author adduces the experience of many other practitioners in favour of this mode of treatment, which twice preserved his own life. The dose he commonly prescribes, is from two to three ounces of decoction of bark, adding to every alternate dose from one to two drachms of finely powdered bark; occasionally also giving an opiate; and keeping the bowels open. This practice appears to have been successful, both in the fevers at sea, and in the East Indies, and among the wealthy and the poor inhabitants of Newcastle.

The third section treats of intermittent fevers; and Dr. Clarke again deviates from the common routine of practice, with alleged success; he gives bark during the paroxysm, as well as during the intermission of the fever, and thus frequently cures obstinate agues, which have resisted the bark prescribed in the usual way: he has also concluded, from experiment, that it is superior to the arsenical solution in the cure of these fevers.

This volume contains some additional remarks upon dysentery, cholera, colic, diarrhœa, tetanus, and scurvy; and the third part, treating of the means of preventing diseases in voyages to the East Indies, is considerably augmented. The whole seems to be the result of long experience, and of cautious but not timid practice: the author has told us in plain language what he has seen, and has, on the whole, evinced considerable judgment and discrimination in the performance of his task. Some errors, however, have escaped his correcting hand: in one place, (p. 305), we suppose that September is written instead of May. We also meet with some terms not very intelligible to English readers; such as, *engorgement* of the brain.

ART. LXIII. *Annals of Insanity, comprising a Selection of curious and interesting Cases in the different Species of Lunacy, Melancholy, or Madness, with the Modes of Practice in the Medical and Moral Treatment, as adopted in the Cure of each.* By William Perfect, M. D., &c. FIFTH EDITION. 8vo. London. Printed for the Author.

ART. LXIV. *A Guide to Madeira; containing a short Account of Funchall, with Instructions to such as repair to that Island for Health.* SECOND EDITION. 8vo. London. Callow.

ART. LXV. *Familiar Observations on Ruptures, for the Use of Patients of both Sexes.* By Thomas Luxmore, Member of the Royal College of Surgeons, &c. SECOND EDITION. 12mo. London. Callow.

ART. LXVI. *A Treatise on Diseases in the Urinary Canal, particularly describing the various Symptoms attending Strictures, Obstructions, &c.: to which is added, a Variety of Cases tending to shew the Efficacy of Daran's Medicated Bougies, and a new Method of treating Gonorrhœa.* By W. Dufour, Surgeon. SIXTH EDITION. 8vo. London. Callow.

ART. LXVII. *Speculations on the Mode and Appearances of Impregnation in the Human Female, with an Account of the Principal Ancient, and an Examination of the Modern Theories of Generation.* The THIRD EDITION, WITH CONSIDERABLE ADDITIONS. 8vo. London. Callow.

WE have given the above titles, not with any view to an account of the books to which they refer, but in order to expose a shameful fraud and gross imposition, which appears to have been practised on the public with regard to them. In other departments of literature, what are termed 'booksellers' tricks' may not often do much mischief; but when the lives of our fellow creatures are at stake, the least attempt at deception, the least unfair dealing, becomes highly culpable; and the publisher who endeavours to pass off his goods, or the author who attempts to give unmerited importance to particular opinions or modes of practice, by such means, is deserving of something more than mere censure. We feel it, therefore, to be our duty to warn our readers of a practice which they may have heard of before, but which was never more clearly exemplified than in the instances now before us,—the practice of pasting *new title pages* upon *old books*, in order to make them sell as *new editions*. Grating as the discovery may be to the bookseller, and all whom it may concern, we hesitate not to affirm, that of the *five* publications before us, NOT ONE is really and truly a new edition, all of them having been made up in the above ingenious manner. One of these edition-makers, Dr. Perfect, has, indeed, shewn a little compassion to the purchasers of his book; for, besides the new title-page, he has given them a new preface and a new index: and another gentleman, whom the London College of Physicians honours with the title of Extra-Licentiate, and who, at the same time, holds the place of physician to two public institutions in London, has favoured his readers with a paper of his own, extracted from the Medical and Physical Journal, and affixed to the pamphlet in question, in such a way as to conceal some very satisfactory proofs of the genuineness of the new edition: but all the others have been so unhandsome as to present their fresh publications, without a single correction, addition, or improvement. We have just one question to ask, before we take leave of these 'worthy gentlemen:' a *second* edition of Dr. Perfect's Annals did appear, if we mistake not, about the year 1801.—Quære; When were the *third* and *fourth* editions published?

CHAPTER II. SURGERY AND MIDWIFERY.

ART. I. *A Treatise on the Anatomy, Pathology, and Surgical Treatment of Aneurism, with Engravings.* By Antonio Scarpa, Professor of Anatomy and Surgery in the University of Pavia, &c. &c. Translated from the Italian, with Notes, by J. H. Wishart, Fellow of the Royal College of Surgeons of Edinburgh, &c. 8vo. pp. 500. Murray. Printed at Edinburgh.

IN no branch of the art is the superiority of modern surgery more conspicuous, than in that which forms the subject of the work now under our review. The treatment of aneurism particularly demands an attention to several points requiring that combination of anatomical and physiological knowledge with practical skill, attained only in recent times, and most successfully applied to the elucidation of many interesting questions regarding the present disease. Here we may proudly challenge a comparison with the greatest even of our immediate predecessors. Bromfield treats the notion of tying the principal trunks of the arteries of any of the extremities, when wounded, as a 'most extravagant proposition;' and the existence of a femoral or popliteal aneurism is placed by Mr. Pott, no longer ago than in the year 1783, among the causes requiring the amputation of the limb. A student of the present day might regard these assertions with regret, conceiving that they indicate a culpable ignorance on the part of these eminent men: but this feeling will be dissipated by a more perfect acquaintance with the history of the science, which will shew that it was the ignorance of the times in which they lived.

We shall excite in the breasts of our readers a national sentiment of an opposite kind, when we observe, that the present state of our knowledge of aneurism is to be attributed almost entirely to the genius and research of our own countrymen, and to the practical boldness with which English surgeons have applied these methods to arterial trunks, which had never before been the subject of operation.

Mr. Hunter took the lead in these improvements, by substituting, in the place of the old operation for popliteal aneurism, the tying of the artery on the front of the thigh; and this plan was brought to perfection by Mr. Abernethy's method of applying two ligatures on the denuded vessel, and dividing it in the interval. Dr. Jones has since explained how ligatures act on arteries, and developed the

principles which should be kept in view in their employment; and has treated the whole subject of hemorrhage in a most chaste and philosophic inquiry, which leaves hardly any point to be decided by the labours of future experimentalists. We are again called on to mention the name of Mr. Abernethy, as the first who tied the femoral artery above the origin of the profunda, and afterwards even the trunk of the external iliac. The same gentleman had placed a ligature on the common carotid, in the case of a wound under the jaw; but the artery was first tied in carotid aneurism by Mr. Astley Cooper, whose zeal for the improvement of his profession has outlived the paralyzing influence of a most extensive practice, and has been strong enough to prevent him from considering surgery merely as the means of amassing a fortune. Mr. Keate has the honour of being the first who operated in axillary aneurism.

The great additional light thrown on the subject from these and various other sources, and the number of detached cases illustrating particular points, rendered it very desirable, that a work should be undertaken, in which all the scattered rays of information might be collected into one focus. It would be unreasonable to expect novelties of doctrine or practice in a book written with these objects; careful selection and judicious arrangement, in which all the information should be brought together and detailed with clearness and precision, would be the grounds of praise of a general treatise on aneurisms. We undertook the perusal of Scarpa under the influence of these impressions; and indulged the most favourable anticipations, from the instructions we had already derived from him, in the double character of a surgeon and anatomist. The original matter which he had already laid before the public, and his great practical opportunities, induced us to look for some new information, and to suppose that he would not be contented to perform the office of a mere compiler. Our expectations have been disappointed. An English surgeon, who possesses the knowledge of the times, will learn no new facts from Scarpa, with a single exception, which we shall notice as we proceed; while he will find that the Italian professor, in many important practical points, is obviously behind the actual state of information in this country. Neither can we bestow praise on the execution of the work, considered as a mere compilation; it is extremely prolix, and therefore dull and heavy in the perusal. Many of the cases are quoted at full length from other authors, so as to add very unnecessarily to the bulk of the book, which, in its whole construction, deviates very widely from the standard which we should lay down for works of science. It must be understood that all our observations apply to the translation, and not to the original work; the value of which is vastly augmented by several plates, deserving, as we understand, every praise from their anatomical accuracy and unrivalled execution. We found with great regret, that considerations of economy had induced the translator to omit these plates,

which, in our opinion, would have been the only part of the work worth publication. If the text had been translated, it should have been reduced, by lopping off the extraneous and superfluous portions, to about one sixth of its present bulk. Two plates, however, are preserved in the translation. These deserve the praise of expressing clearly what the author intended to illustrate by them; but the points could have been perfectly understood without their assistance. We shall present the reader with an analysis of the different chapters in succession, which, with our own remarks, will form a short summary of the present state of our knowledge concerning aneurism. The first four chapters are occupied with a minute and detailed account of the arteries of the extremities, principally with a view to shew the inosculations, by which the circulation can be carried on, when any main trunk is obliterated. The fear of gangrene, which restrained the older surgeons from tying the great vessels of the limb, is now proved to have been a visionary apprehension. 'After these proofs' (says Mr. Bell *), 'the questions about inosculations may be blotted out altogether. Wounds of the axillary artery, like wounds of the femoral artery, are often dangerous from secondary bleeding, but never fatal from want of inosculations. We may tie the greatest arteries confidently, wherever they are wounded, without the trunk of the body. We should tie as boldly the arteries at the groin or in the axilla, as the lesser branches going down the thigh or arm.' The practice of modern surgery has kept pace with these principles. The arteries of the head and extremities have been tied in every accessible situation;† so that there is now no possibility of gaining fame by adventures of this sort, unless a method could be devised of applying a ligature to the aorta. In none of the operations on the external iliac or axillary arteries, has the limb been insufficiently nourished; although the obstruction of these trunks is placed, in all systematic works, as a certain cause of immediate mortification. The general and implicit belief, which this dogma has met with, shews us, that the operation of faith is not confined to religious matters only; and that if any assertion, however unfounded, be repeated a few times with sufficient confidence, it will be received, at last, as an undoubted truth. We do not mean, by these observations, to say, that the ligature of the artery has, in no instance, had the effect of disturbing the vascular supply of the limb. In some very rare cases, although the whole extremity has regained its warmth after the operation, the powers of the part have been so far weakened, that

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* Principles of Surgery, vol. i. p. 310.

† We must except from this observation the artery of the upper extremity above the clavicle; in which situation, however, we once saw an *attempt made* to tie it. We shall add no further particulars, except that the pulsation was not interrupted by the operation, and that the patient died in a few days from the bursting of the sac.

mortification of the toes has followed. Two examples, in which the success of the operation for popliteal aneurism was frustrated by this cause, are related in the appendix to the present work. The extremely small number of such occurrences sufficiently shews that they are exceptions to the general rule. We shall extract the result of the author's investigations on the subject of arterial inosculations, as a fair specimen of the work and of the translation.

'The ancient surgeons were only acquainted with a few of these arterial communications in each of the extremities; but ever since the act of injection was introduced into anatomy, and cultivated, this communication has been discovered to be very much extended, not only between the arteries of the distinct parts of each limb, but also between those of different divisions of the arterial system. To this system may be justly applied the saying of Hippocrates, *in toto corpore unus consensus et una conspiratio*; for it may be boldly stated, that the whole body is an anastomosis of vessels, a vascular circle. This fact is so true, that, although in some rare cases there may occur a constriction and obliteration of the trunk of the great artery of the body, (I mean the aorta,) immediately below the arch which this artery makes; the circulation through the rest of the body, from the neck to the feet, is not thereby stopped or obstructed. For Mr. Paris, who happened to observe this rare occurrence in the body of a woman, viz. the constriction and obliteration of the tube of the aorta, a little beyond its arch, found in that case, that, during the life of the woman, the blood sent by the heart was conveyed into the trunk of the aorta below the place of constriction, through the subclavian, axillary, and cervical arteries, into the mammary, intercostal, diaphragmatic, and epigastric arteries; and that, from thence it was conveyed to the viscera of the thorax and abdomen, and to the lower extremities. Stenzel found in the body of a man two steatomatous tumours formed in the substance of the membranes of the aorta, immediately below its arch, which almost entirely closed its tube, though this subject had always the habit of body of a well nourished and robust man. Meckel, in the bodies of two subjects, found the aorta, just below its arch, so much thickened and constricted, that the blood impelled by the heart could pass with great difficulty, and in small quantity, and regurgitated so strongly towards the heart, that it had lacerated the semilunar valves; notwithstanding which, there was no appearance, in these subjects, of the viscera of the abdomen, or the inferior extremities, having been deprived of the usual quantity of blood circulating in them. I have repeatedly had occasion to observe, what others may likewise see at pleasure, that on tying tightly the aorta in the dead subject immediately below its arch, in order to throw with great force the injection into the arterial vessels of the head and arms, a very fluid injection has likewise found its way, by the vessels of the neck, by the subclavian, by the dorsal, and especially the two upper intercostal arteries, into the arteries of the thorax, and to those of the abdomen, and for a long space, even to the principal arterial trunks of the lower extremities.'—'The arteries of the extremities communicate with each other from their origin to their termination, following the constant rule, that every great anastomosis of a limb comprehends within it a connexion like the links of a chain; which is as much as to say, in the inferior extremities, the first great anastomosis includes the connexion of the pelvis and the thigh; the second, that of the former with the tibia; the third, that of the tibia with the foot, in such a manner, that, all these circles communicating together, the passage of the blood from the first to the last of these anastomoses is perfectly free. In the same

manner we observe, in the superior extremity, that the first great circle, or anastomosis, includes the union of the scapula with the humerus; the second, that of the humerus with the fore arm; and the third, that of the fore arm with the hand; and the blood, passing from the one to the other of these anastomoses, traverses the whole length of the superior or inferior extremity, whether one of the principal arteries of the limb be pervious, or be, from some accident, obliterated, or artificially tied.' p. 48—51.

The anatomical descriptions, contained in these first chapters, do not appear to differ in any material points from those which are already before the public. We think, therefore, that they might very well have been omitted, as we are not favoured with the plates; without which, it is almost impossible to fix the dry anatomical description in the memory.

In the three succeeding chapters the author discusses the important subject of the formation of the aneurismal sac. It is here that he has the greatest claim to originality; a claim, indeed, not arising from any actual novelty, but from superior accuracy and precision, the result of minute and careful anatomical investigations. He labours to prove, that the doctrine of the schools, concerning the division of aneurisms into true and spurious, is unfounded; and that there is no such affection as *true* aneurism. We think that he goes far towards establishing this point. A correct notion of the natural organization of the arterial coats is essential to our understanding rightly their morbid deviations, and appretiating the different methods in which these are explained. We shall therefore point out, in the first place, what we consider as erroneous statements of Scarpa, concerning the structure of arteries. That part which has usually been described under the name of *cellular* or *external* coat, is represented by him as an adventitious sheath, common to the artery with the parts in the vicinity of which it runs. Into this investment of soft, spongy, and yielding cellular substance, the artery retreats when cut. The name of sheath, or cellular sheath, is given by Scarpa to this part, while he distinguishes the middle * and internal by the name of the *proper* coats of the artery. Our author's representation is correct, so far as regards the cellular substance, which joins the artery to the neighbouring parts; and which, in the large trunks of the extremities, forms a tolerably dense sheath, connected by a looser texture to the vessel. But we state most confidently, that when all this sheath has been removed, the middle coat of the vessel is still surrounded by a compact and strong, though thin cellular coat, most clearly distinguishable from the muscular fibres, (as they are commonly called,) on one side, and from the loose

* This is the *muscular* coat of most anatomists, the *elastic* of Mr. Hunter, and the *fibrous* of some authors. We prefer, with Soemmerring and Dr. Jones, the epithet *middle*, as that leads to no dispute concerning its nature.

cellular sheath on the other. Its texture is close and uniform internally, more open and rough on the outside; and it is resolvable, by maceration, almost entirely into cellular substance. This covering is the *cellulosa propria* of Haller, who very rightly distinguishes it from the cellular sheath, or *cellulosa adscititia*. It is of the first importance in a surgical point of view, as being the only part which resists a ligature tied firmly on a denuded artery. The observations of Dessault, confirmed by the subsequent accurate experiments of Dr. Jones, have proved, that the middle and internal, or *the proper coats*, according to Scarpa, are fairly cut through by the thread. Hence, if Scarpa's representation were correct, an artery, when laid bare by opening its sheath, would be actually divided by a sharp ligature. The resistance which this external or cellular coat affords, after the internal and middle tunics have given way, is seen also in the employment of forcible injections in the dead body. Nicholls proved, by numerous experiments performed before the Royal Society of London,* that the injected matter ruptured the two inner coats, and elevated the cellular covering into a tumour. Scarpa has several times verified this fact; and he applies the conclusions, drawn from these experiments on the dead arteries, as we think, rather incautiously, to the processes of the living body. He argues, that the internal coat of an artery, when weakened by a blow, strain, or other external violence, or when spontaneously diseased, 'is thinned, separated, or ruptured, by the repeated jets of blood thrown from the heart.' p. 73. The blood now oozes through the fibres of the muscular coat, and is gradually effused into the interstices of the cellular covering. When these fibres are at last completely wasted and lacerated, the blood is carried, in greater quantity, and with more force, into the cellular sheath, which it distends, and converts into an aneurismal sac, filled with polypous concretions and fluid blood.

The causes of aneurisms, as alluded to in different parts of the work, are referrible to four heads; first, increased impulse of blood from the heart; secondly, wounds of the arteries; thirdly, blows and strains; fourthly, disease of the arterial coats. The first of these seems to our apprehension very dubious: the fourth is the most frequent and important. It is designated by Scarpa as a 'slow, morbid, ulcerated, steatomatous, fungous, squamous, degeneration of the internal coat, accompanied with earthy rigidity and brittleness.' He seems to think this selection of epithets particularly happy, as he repeats it in almost every page of the work.

It will clearly follow, from the above representation, that an aneurism arises from a diseased or ruptured state of a small portion of the artery; that the unsound condition of the arterial coats, in which the affection originates, is confined to one side of the vessel; that

* Philosophical Transactions for 1728.

the opposite part retains its natural structure; that the middle and internal coats may be traced to the point of continuity between the artery and aneurismal bag; and that the latter is formed merely by the cellular coat and sheath of the vessel in the first instance; involving, however, in the subsequent progress of the tumour, all the surrounding parts.

Scarpa particularly insists on the fact, that aneurism of the aorta never includes the whole circumference of the tube of the artery; but that its root involves only one side, from which the sac rises in the form of an appendix or tuberosity. In the situation, where the tumour is attached to the vessel, there is always a species of constriction, or neck, marking the point at which the aneurismal coats have been ulcerated or ruptured. These appearances are just the reverse of what we should expect, on the supposition of aneurism being formed by an equal distension of the arterial tube. The greatest size of the tumour in this case should be in the artery itself; whereas observation constantly demonstrates, that, whether the aneurism be small and recent, or large and of long duration, the passage from the artery is always narrow, and the fundus enlarged more in proportion as it is further removed from the artery. Similar phenomena may be noticed in the femoral and popliteal aneurisms, and lead us to form the same conclusions.

'Whoever,' says the author, 'has had an opportunity of dissecting aneurisms of the popliteal artery, cannot fail to have seen, that the two orifices of the artery are never situated at the two extremities of the sac, but on one side, and sometimes at a little distance from one another; that is, the superior orifice of the ruptured popliteal artery is as far distant from the inferior as the size of the rupture in it, which sometimes extends an inch or inch and half in length. If it were true that the aneurism was formed by the dilatation of the proper coats of the artery, since the bloody tumour is always formed on one or the other side of the artery, and never comprehends the whole circumference of the tube, it would be necessary to suppose, that the portion of the anterior or posterior side of the artery, equal to an inch and a half in extent, and sometimes much less, was susceptible of such a dilatation as to form a sac of the size of a goose's egg, or of the fist, in the cavity of the ham, which, comparing the small extent of the distended side of the artery with its small density and capability of extension, approaches to perfect absurdity. That the popliteal or femoral aneurism is never preceded by dilatation at the place of the disease of the proper coats of the artery, is proved by the inspection of the disease, as well as by the careful comparative dissection of the coats of the artery, and those of the aneurismal sac; the first of which are muscular, the latter wholly cellular: and it is further confirmed by the artery constantly preserving its cylindrical form both above and below the root of the aneurism; whilst, if the artery formed the aneurismal sac before being ruptured, it would be always found at some distance above the tumour, of a funnel shape, the base of which would be in the sac, the apex in the superior orifice of the artery. But the contrary of this is always observed, and the popliteal and femoral arteries are always found to preserve their cylindrical form immediately above the root of the sac, into which the artery has rather the appearance

of penetrating farther, than of expanding its coats to form the parietes of that receptacle of the blood, and to take a part in its formation.' p. 151, 152.

In some cases there is an enlargement of the aorta, where it emerges from the heart, a general dilatation of the whole tube. Aneurism may take place in such an instance, but it is still formed in the way already explained, by the rupture or ulceration of the proper coats. Where this dilatation of the arch of the aorta has preceded the bursting of the vessel, if we make an incision on one side into the aneurismal sac, and on the other into the tube of the artery lengthwise, two sacs present themselves, separated from each other by means of a partition or diaphragm, lacerated in its middle; which partition is formed of nothing else than the remains of the internal and muscular coats of the ruptured artery. The appearances exhibited in such a case prove the distinction between a dilated and an aneurismatic artery. Great weight is added to these representations by the results of a careful examination of the arterial and aneurismal coats. Scarpa reproves the careless manner in which these diseases are usually examined; the surgeon generally contenting himself with cutting the fundus of the sac, and viewing, with useless curiosity, the grumous blood and polypous concretions which fill it. If aneurism were a dilated state of an artery, we should expect to find the coats of the tumour similarly organized in all parts, and to see, at least in incipient cases, traces of the proper coats of the artery upon the tumour. But the fact is otherwise. The portion of the vessel opposite to the rupture, which is not, properly speaking, included in the aneurism, has its coats separable from each other, although possibly diseased; and this separation can be carried as far as the constriction which marks the commencement of the sac. The coats of the aneurism itself are merely dense cellular layers, continuous with the sheath and cellular coat of the artery; which is prolonged from the sound vessel over the aneurismal bag. This adheres very closely, particularly in old cases, to the subjacent muscular coat of the artery, particularly at the stricture or neck of the aneurismal sac.

'It is then clearly perceived, that the muscular coat of the aorta does not pass beyond the partition, which divides its tube from the entrance of the aneurismal sac; and it is distinctly observed, that the fibres and layers of the muscular coat are not prolonged over the aneurismal sac, but terminate like a fringe, or in obtuse points, at the edge of the rupture of the artery. On which account, nothing can be more evident, than that the aneurismal sac does not belong at all to the artery, and that, properly speaking, it is only the cellular sheath, which in the sound state covered and connected the artery to the neighbouring parts, which, being elevated by the effused blood, at first in the manner of an ecchymosis, then distended and compressed, has acquired that degree of density, and of additional hardness and thickness, as if it had been formed by the proper coats of the artery, prodigiously relaxed, distended, and thickened. These appearances the more readily lead to error, as both the injured artery and the aneurismal

sac, as has been frequently mentioned, are covered by a common smooth membrane externally, such as pleura in the thorax, and peritoneum in the abdomen.' p. 79.

The same explanation, which the author adopts with regard to aneurism of the aorta, is extended by him to the other arteries. In this way aneurisms are produced, when they occur in consequence of diseased arterial coats, or from blows, or strains. Our author explains the tumour formed over a punctured artery on the same principles, which accord with the generally received notions on the subject. The degree of resistance offered by the surrounding substance to the effusion of blood from the wounded vessel, influences the growth and size of the tumour, and occasions it to assume the appearance of a circumscribed or diffuse aneurism. We subjoin the following quotation, as it exhibits a connected view of Scarpa's opinions regarding the formation of the aneurismal sac:

'From all that has been hitherto said with regard to aneurism in general, and more particularly that of the aorta, it appears to me, that we may certainly conclude. 1st; That this disease is invariably formed by the rupture of the proper coats of the artery. 2dly; That the aneurismal sac is never formed by a dilatation of the proper coats of the artery, but undoubtedly by the cellular sheath, which the artery receives in common with the parts contiguous to it; over which cellular sheath, the pleura is placed in the thorax, and the peritoneum in the abdomen. 3dly, That if the aorta immediately above the heart appears sometimes increased beyond its natural diameter, this is not common to all the rest of the artery; and when the aorta in the vicinity of the heart yields to a dilatation greater than natural, this dilatation does not constitute, properly speaking, the essence of aneurism. 4thly; That there are none of those marks, regarded by medical men as characteristic of aneurism from dilatation, which may not be met with in aneurism from rupture, including even the circumscribed figure of the tumour. 5thly; That the distinction of aneurism into true and spurious, adopted in the schools, is only the production of a false theory; since observation shews, that there is only one form of this disease, or that caused by a rupture of the proper coats of the artery, and an effusion of arterial blood into the cellular sheath which surrounds the ruptured artery.' p. 113.

Our own observations and dissections, not indeed performed with all the exactness that would be necessary in order to afford indisputable data, coincide in a great measure with those of Scarpa, in establishing, if not the non-existence, at least the great rareness of true aneurism: a point, it must be confessed, which does not influence the surgical treatment, although it is important in the pathology of the disorder. We have been particularly struck with the fact of the tumour being confined to one side of the vessel, while the other remained sound, and with the smallness of the communication between the sac and artery; which circumstances can hardly be reconciled with the hypothesis of dilatation. Yet we have lately seen appearances, which confirm the common opinion; as, for instance, a small pouch in the aorta, lined by the internal coat of the vessel, and a general dilatation of the popliteal artery, which appeared to have

burst, so as to form a spurious aneurism. Scarpa's proofs are defective in the first stage of the disorder. He has dissected no cases in which he could shew the internal coat torn or ulcerated, and the subsequent wasting or ulceration of the middle tunic; which is, however, absolutely necessary before we can adopt the whole of his explanation. Now, although the appearances discovered in a subsequent period coincide very well with his opinions, yet they may be accounted for on the commonly received principles. We can easily admit that a portion of artery may be first dilated, and then ulcerated or torn, so as to form spurious aneurism. And we see no greater difficulty in allowing, that the dilatation may be confined to a small spot, than that an equally limited point may be the seat of an ulcerative process. Hence, we by no means wish to represent the question as finally settled. Neither can we agree with the author when he asserts, that the laceration or ulceration of the parts is visible in the sides of the opening. The margin has always appeared smooth and unbroken in our dissections: and the toughness of the aneurismal coats, with the condensation and thickening of the surrounding parts, would by no means admit of our finding the broken muscular fibres terminating round the aperture in a fringe.

Our accusation of prolixity will appear amply justified, when we state, that this account of the formation of aneurisms, of which we have given the whole substance, occupies 135 pages, and the reader will be curious to know how so slender a portion of matter can have been diffused over such an unreasonable space. The object is partly accomplished by a discussion of the opinions of various old writers; and we are obligingly informed of what Ætius, Sylvaticus, Fernelius, Sennertus, Muraltus, &c. &c. &c. thought and wrote. We wonder that Scarpa's good sense did not shew him the absurdity of this learned trifling; he must surely have known, that the opinions of men, who knew nothing of anatomy, and worse than nothing of physiology, could not have the least weight in a question, which must be decided by repeated accurate dissections, and rational views of the animal economy. The authority of the Pavian professor, on a point like the present, would, in our opinion, outweigh the combined testimonies of all the anatomists previous to the eighteenth century. We are particularly vexed, when a person, whose abilities and opportunities qualify him for labours of real utility, wastes his efforts in the unprofitable employment of raking together the rubbish of former times.

The cure of aneurism in general is treated of in the eighth chapter; and that of the popliteal, femoral, and brachial aneurisms, is considered in the three succeeding chapters. This distribution gives rise to some repetitions, which might have been avoided by a different arrangement. The eighth chapter, although, like the rest of the book, tedious and prolix, contains a collection of useful facts and observations.

Aneurisms either disappear spontaneously, or may be cured by surgical means. In the former case, the vessel is obliterated at the seat of the disease, and for some distance above and below that part. The swelling generally increases to a great size; the pulsation then stops, and the tumour is gradually reduced by the absorbents. The artery will be found, in such a case, converted into a solid chord. We have seen this in an axillary aneurism, and ascertained the closed state of the vessel, by examination after death. The spontaneous cure may proceed in a somewhat different way. After increasing to a great bulk, the sac may inflame and slough. We know that the process of mortification is attended with a coagulation of blood for some extent in the large vessels; and this process saves the patient from the bleeding, which must otherwise be inevitably fatal on the exposure of the cavity of the sac. If the powers of the constitution are able to support the separation of the gangrenous parts, the patient recovers with an obliteration of the affected artery. The artificial means employed for the cure of aneurism, are compression, and the ligature. The former is either applied to the sound portion of the trunk, or to the tumour. It acts by producing an adhesion of the sides of the vessel, and converting the tube into a solid chord. The conditions essential to the success of this plan, are a sound state of the arterial coats, and a power of bringing the sides into mutual contact; consequently it is totally inapplicable to aneurisms that occur spontaneously, and to all those cases in which the size and fleshiness of the limb, and the course of the vessel, do not admit of our subjecting it to effectual pressure. In other words, the number of aneurisms, in which compression may be expected to succeed, is extremely small.

The author considers it a matter of regret, that the pressure cannot be applied directly to the arterial trunk: in which case, the sponge and compresses, placed over the vessel, might be moistened with astringents proper for causing a contraction of the artery, and for exciting the adhesive inflammation in its coats. That a foreign body, applied to an artery, would cause inflammation of the vessel, seems very probable; but the notion of making a large living arterial trunk contract, by the external application of astringents, could only be derived from the physiological and pathological doctrines of the dark ages. The most certain method of obtaining that obliteration, which forms the cure of aneurism, is the application of a ligature to the sound artery, above the disease. In this method, the tube is destroyed in the situation of the ligature, and it is also obliterated at the seat of the disease. The circulation of the limb is afterwards performed by the aid of the anastomosing branches. There appears to be a general law, affecting all vessels in the body, by which they contract and close, when their fluids either do not pass through them at all, or are conveyed in diminished quantity. Hence a tied artery is always obliterated as far as the origin of the

first branch above the ligature; and hence the aneurism, which still receives a supply of blood through the inosculating arteries, after the direct stream is intercepted, gradually contracts, and at last entirely disappears.

'It is a thing truly worthy of remark, that the obliteration of the cavity of a tied artery is not properly confined to the place of the ligature, and to that portion to which the adhesive inflammation has extended, but even after the inflammation has ceased, and the union of the two opposite parietes kept in firm contact has taken place, the obliteration continues successively to go on under the ligature, to extend sometimes a great way, and as far as the seat of a large anastomosis. This, properly speaking, is not a power of which the arteries alone are possessed, but it is common to all the other canals of the animal body, which, in the same manner as arteries, have a natural tendency to contract, as soon as the fluid, which usually flows in them, ceases to pass. When the trunk of an artery is tied a considerable way above the root of the aneurism, the column of blood, which, from any of the anastomosing vessels, endeavours to enter into the trunk, below the ligature, and to pass from thence into the aneurismal sac, has never force sufficient to distend the sac, and overcome the resistance opposed by the clots contained in it. The blood, therefore, which enters into the trunk below the ligature, and above the root of the aneurism, being at first retarded in its course, and then conveyed into the inferior anastomoses, leaves entirely the principal trunk, which continues to contract, and becomes obliterated as far as the root of the aneurism inclusively. The blood, wherever it meets with an obstacle to its passage, avoids it, provided it has a more easy channel for continuing its course, according to the law of the vascular system, which we call derivation. We see in fact, in the child soon after birth, that the blood of the pulmonary artery, finding a more easy course through the lungs, than by the ductus arteriosus, leaves this canal to enter into the lungs; that on tying the umbilical vein, the course of the blood from the vena portæ through the liver being accelerated with a new force, leaves the ductus venosus, which used to pour it into the subjacent vena cava; that the blood of the ventral aorta, on the cord being tied, takes no longer the route of the umbilical arteries, but that of the arteries of the lower extremities. Supported by these facts, it may be established as a theorem in physiology, that whenever the blood meets with a powerful obstruction in its passage to a given place, through an artery, it leaves that artery to enter into another; and the artery, which has been abandoned, diminishes gradually in diameter, until it is entirely obliterated.' p. 212, 213.

This is a fact of the greatest importance, as it justifies our practice, in tying a distant part of the artery; a practice of a peculiar advantage, in enabling us to operate where the arterial coats are sound. Now, it has happened, in some rare instances, that a pulsation has again commenced in the aneurismal sac, at a short interval after the operation. This occurred to Mr. Cooper in the carotid artery, where the great size and number of the communicating channels easily explain the phenomenon; it has been noticed by Mr. Home and others in the popliteal. The secondary pulsation has, however, always ceased, in proportion as the contraction of the sac and obliteration of the diseased vessel proceeded. Mr. Home has

offered a different explanation of the circumstance; which, although completely inadequate, is commended by the translator, as accurate, judicious, and satisfactory. 'The only way,' says he, 'in which the pulsation could recur in the tumour, after it had been stopped, must be by means of anastomosing branches: and if the branch, which received the communication, had its origin near the ligature, it is probable, that, in the progress of the case, the femoral artery became obliterated higher up than the origin of this branch, and shut it up.' Now, to say nothing of the great improbability of this phenomenon arising from the communication of any single branch; not to mention that the trunks of all the great anastomosing channels come off much above the ligature, not from the femoral artery itself, but from the profunda; and that they are all in a state of increased activity, therefore much more likely to become enlarged, than obliterated; this 'accurate, judicious, and satisfactory' explanation would be completely overturned by the well known fact, that a tied artery is never rendered impervious higher than the first branch, and that the origin of such branch is the exact boundary of the obliteration.

Great diversity of opinion has prevailed concerning the best method of tying the artery in the operation for aneurism; and a history of all the proposals which have been published on this subject, would be a record of the inconsistencies and absurdities of surgical practice. After the Hunterian plan, of tying the artery with as small a derangement as possible of the surrounding parts, had been made public, surgeons were so little aware of the principles on which the peculiar advantages of this operation rested, that they fancied they were repeating Mr. Hunter's method, when they were practising devices of their own—when they were tying cylinders of cork and wood upon the arteries with broad tapes,* and surrounding the vessel, above the tied part, with ligatures of reserve.†—These proceedings arose from a fear of cutting the coats of the vessel; and they produced an effect which might easily have been expected *a priori*, viz. so much irritation of the artery, that ulceration of the vessel and hemorrhage frequently followed. The practice of Scarpa has proceeded on the same principles: he places a roll of linen as a protection over the artery, and uses very broad ligatures. That the views which have directed all these proceedings, are radically erroneous, is sufficiently proved by the experiments of Dr.

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* See a case, in the 'Transactions of a Society for the Improvement of Medical and Surgical Knowledge,' where a cork was tied on the femoral artery with two tapes of an inch broad. Vol. i. p. 175. *See also Med. Obs. and Inq.* vol. iii. p. 108.

† See a case in the Parisian Surgical Journal, where five ligatures were employed. Vol. i. p. 201.

Jones, who has been the first to deduce the practical rules for the application of ligatures from direct experimental investigations.

The effects of a ligature properly applied to an artery, according to this author, are, 'to cut through the internal and middle coats, and to bring the wounded surfaces into a perfect apposition: to allow of the formation of a coagulum of blood just within the artery, provided a collateral branch is not very near the ligature: to excite inflammation on the internal and middle coats of the artery, by having cut them through, and consequently to give rise to an effusion of lymph, by which the wounded surfaces are united, and the canal rendered impervious: to produce a simultaneous inflammation on the corresponding external surface of the artery, by which it becomes very much thickened with effused lymph; and, at the same time, from the exposure and inevitable wounding of the surrounding parts, to occasion inflammation in them, and an effusion of lymph, which covers the artery, and forms the surface of the wound: to produce ulceration in the part of the artery around which the ligature is immediately applied, viz. its external coat.'*— The obvious inferences from these facts are, that the artery should be disturbed as little as is consistent with the safe performance of the operation; and that it should be tied singly, without including any neighbouring vein or nerve; both which conditions are easily fulfilled, if the operating surgeon be at the same time an anatomist: that the ligature should be round, firm, and not large; that it may cut the coats, without bruising them; and that it should be drawn tightly, in order to insure its operation in dividing them.

Although the researches of Dr. Jones have set these matters in a clear light, the influence of the old opinions has continued, even to the present day. There are still surgeons who draw the ligature sufficiently only to stop the flow of blood through the vessel, and who consequently tie the artery so loosely, that they deem it necessary to adopt the practice of stitching it beyond the ligature, to prevent that from escaping.

We think the translator right in recommending that particular method of using the ligature, which was proposed by Mr. Abernethy, as modern practice has afforded such ample experience of its safety: we allude to the employment of two ligatures, which are to be tied just at the points where the vessel remains surrounded by its natural connexions, the artery itself being divided in the interval. The obstacles, which, according to Scarpa, prevent the success of the operation for aneurism, especially in the ham or thigh, are, a diseased state of the artery; and 'an atony, rigidity, or disorganization of the principal anastomoses.' The latter phrase conveys no precise information to our minds; but we conjecture

* Jones's Treatise, p. 163.

that these hard words are merely a mode of stating the fact, that the vascular supply of the limb is not adequately performed by these anastomoses: an event which has not occurred within our own experience or knowledge, and the extreme rareness of which we have already noticed. Many instances have occurred in which the operation was frustrated by want of adhesion in the artery, consequent on disease of the coats. Vacca operated in the Hunterian manner on an old subject, in whom the artery remained tied twenty-five days without hemorrhage; yet the case terminated fatally, from bleeding. The vessel had not adhered; and its internal membrane, for some length, was thickened, indurated, and cartilaginous.

In treating of the cure of popliteal aneurism, which forms the subject of the 9th chapter, the employment of compression is very properly limited by so many conditions, that it is almost entirely set aside. It cannot be resorted to with any rational expectation of success, except when the rupture of the popliteal artery is owing to an external cause; where there is a possibility, at the seat of the tumour in the ham, of pressing the two opposite parietes of the lacerated artery against the inferior and posterior surface of the thigh bone; and where a sufficient degree of pressure can be exerted to excite that adhesive inflammation in the artery, by which it is converted into an impervious ligamentous substance. Now, as the aneurisms of the lower extremity generally arise from disease of the arterial coats, as the position and connexions of the artery hardly admit of the effectual application of compression, and as the improved operation is so generally successful, the surgeons of this metropolis are fully justified in resorting to the use of the knife in all such affections.

Scarpa's mode of making compression, is different from what some others have recommended. He adopts the expulsive bandage of Theden; in which the limb is regularly rolled from the toes upwards. Compresses are placed on the aneurismal tumour, and a longitudinal one in the course of the superficial femoral artery; after which the application of the roller is continued to the top of the thigh. We are directed to moisten it with various astringents, which, we are gravely informed, are not capable of causing a contraction of the artery or aneurismal sac, without the assistance of the compression. The operation of the bandage, when employed in this manner, is very gradual; and a cure cannot be expected in less than three or four months. Another method of proceeding has been recommended by Mr. Freer, of Birmingham, who proposes to make a strong compression on the artery above the aneurism, by means of a tourniquet. Experience must decide which of these deserves the preference. If, by chance, a case of popliteal aneurism should occur, favourable to the use of compression, and the surgeon should resolve to use either of the above described methods,

let him desist immediately, if he finds that the limb swells, becomes very painful, and that the pain and numbness of the ham increase. The measure, on which we are to depend for the cure of popliteal aneurism, is the ligature of the femoral artery in the front and upper part of the thigh. Scarpa's external incision, which begins below, just where the artery passes behind the upper or inner edge of the sartorius muscle, and is prolonged upwards, in the course of the vessel, has our entire approbation, as well as his advice to disturb the muscle as little as possible.

In the operations which have fallen under our own observation, the first wound has generally been made over the sartorius: the exposure of the artery is rendered much more difficult, when the operator has to seek for it behind the muscle, and the embarrassment which we have witnessed from this cause, induces us to recommend a particular attention to that point. We also advise a free external wound, as contributing materially to facilitate the subsequent dissection. The surgeon then proceeds in a careful manner, and without the employment of violence, to insulate the artery from its connexions; a measure rendered rather difficult by the close union of this vessel with the vein. When it is exposed, he can generally accomplish his object by the handle of a knife, or probe, assisted by a little dissection. The application of two ligatures, at the very points where the vessel retains its surrounding connexions, and the division of the artery in the interval, finish the operation. The sides of the wound should be drawn together by sticking plaister, as in all other cases. The operation now described differs from that of our author, not only in the mode of tying the artery, but also in the treatment of the wound, which he recommends to be dressed from the bottom. This is particularly objectionable, as the inflammation which takes place in a cut surface, covered with lint, is always much more considerable, than where the sides of the wound are brought into close contact: and every motive concurs, in the present case, to induce us to adopt such measures as will prevent or diminish irritation.

* The phenomena, which follow this operation, are, the total ceasing of the pulsation of the aneurismal tumour in the ham; the immediate sensible depression and flaccidity of the aneurism; the disappearance of the pain in the seat of the tumour; the strong vibration of the articular arteries round the knee. The temperature of the leg and foot of the operated side remains, for some hours after the operation, lower than that of the sound limb, and the patient sometimes complains of a creeping sensation in the affected limb, or as if water were running down through the leg and foot. But by continuing the application of the flannel, and of the bladders half full of tepid water, and using frictions with some spirituous liquor, as camphorated spirits of wine, these parts soon reacquire their original heat; and even in general, twenty-four hours after the operation, the heat of the operated limb, as ascertained by the thermometer, exceeds considerably that of the sound one. Afterwards, the

increase and diminution of the heat of the operated limb, compared with the sound limb, is irregular, until the fifteenth or eighteenth day after the operation; after which time, the heat of both inferior extremities comes to an equilibrium.' p. 269.

'These phenomena are followed, in the course of a few weeks, by the obliteration of the popliteal artery in the ham which was lacerated or ulcerated, or in some other way diseased or disorganised; the absorption of the extravasated coagulated blood in the aneurismal sac, and the gradual diminution and final disappearance of the aneurism in the ham, with the exception, sometimes, of a slight induration caused by some portion of the compact cellular substance which formed the aneurismal sac, or some remains of the fibrous part of the blood. This slight hardness, which occurs in the bottom of the cavity of the ham, does not afterwards occasion any inconvenience to the patient, and does not at all hinder him in performing the motions of the knee and leg with quickness and safety.' p. 213.

The cure of femoral aneurism is treated in the tenth chapter.—Although our author had met with no case in which an operation had been attempted above the profunda, yet he concludes, that the surgeon would be warranted in tying the common femoral artery below the crural arch; 'since dissection and practical observations prove, that the arteries of the cavity of the pelvis may amply supply the circulation, and preserve the whole of the subjacent limb.' The application of a ligature to the external iliac, above the crural arch, does not seem to have entered into his contemplation. The experience of English surgeons has already supplied numerous instances of the most perfect success from the performance of an operation, in the manner already described, upon the external iliac artery; and the translator has made a valuable addition to the work, by placing three of these cases in his appendix.

Our decision respecting the propriety of operating above or below the origin of the profunda, in a femoral aneurism, must be regulated by the position of the tumour in the thigh. And this question can only be settled by determining the exact situation at which the profunda arises. A late writer, who piques himself on his anatomical knowledge, and indulges in the coarsest abuse of all who differ from him, has affirmed, in a work which he has thought fit to call 'Principles of Surgery,' and in a section entitled 'True History of the Femoral Artery*,' that the profunda arises five inches below the crural ligament! That this is the real opinion of that writer, is sufficiently evident, from his having committed the same error in an anatomical work, where, with perfect carelessness, as if it were a matter of indifference, he says, that the profunda arises four inches below the groin, *more or less*.† Now the truth is, that

* Principles of Surgery, vol. i. p. 255.
† Bell's Anatomy, vol. ii. p. 366, ed. 2.

the origin of this vessel is never more than two inches below the crural arch, very seldom so much; and commonly between one and two.

Brachial aneurism, which forms the subject of the 11th chapter, is usually produced by external causes, and most frequently by the lancet in the operation of phlebotomy: aneurism of the arm, from disease of the arterial coats, being a very rare occurrence. From this circumstance, as well as from the position of the vessel admitting of its being compressed against the bone, pressure may be employed in the cure. When the vessel has been wounded in bleeding, the incision of the integuments heals readily; and we observe afterwards a small pulsating tubercle, not painful, and remaining stationary for some time. This may go on enlarging after the manner of popliteal aneurism. In other cases the tumour increases soon after the accident, the extravasated blood extending towards the axilla, and the aneurism being converted from a *circumscribed* to a *diffused* state. Here the whole arm becomes swollen, tense, and highly painful; and falls into a state of gangrene, unless it be relieved. Compression may be employed with the best hopes of success, immediately after the wound, or while there is merely a small circumscribed tumour. The expulsive bandage, which has been already mentioned, may be used in this case; or graduated compresses may be bound firmly on the wounded part, taking care that the limb shall not be constricted circularly. If this treatment succeeds, it either produces an obliteration of the vessel, or a closure of its sides. In the latter case, there is generally a small coagulum interposed; so that the cut edges are not perfectly united for some time after the accident: but Scarpa mentions a case, which he regards as extremely curious, where the sides of the artery had completely cicatrized. In the diffuse state of brachial aneurism, an incision should be made into the tumour, a tourniquet having been applied, or compression being kept up on the artery above. When the coagula are removed, remission of the pressure points out the place of the wound, and the artery may be tied in the usual way.

The experience of Scarpa has supplied him with no facts concerning the safety of applying a ligature to the axillary artery. Indeed, we believe that no case is recorded, except that by Mr. Keate, where the artery had been tied so high up as the clavicle; although there are several instances of its having been tied lower down. Our author, however, from considering the course and connexions of the arteries in this situation, draws the following very rational conclusion:

'I am so fully persuaded, by anatomy, that the arm may be saved, notwithstanding the ligature of the axillary artery, independent of the plexus of brachial nerves, that I venture to predict, that the time will come, and that ere long, in which surgeons will wonder at our doubts on this sub-

ject, as we have been astonished at the perplexity and fears of our predecessors on the point of the ligature of the brachial artery, so high up as the middle of the humerus, and of the femoral artery in the upper part of the thigh, or at only four fingers below the crural arch, without the subjacent limb being deprived of its circulation and life.' pp. 373, 374.

On the subject of carotid aneurism, there was no direct experience, when this work was published, of the effects of a ligature: yet the author relates instances, in which the artery had been obliterated. One occurs in the works of Acrel, another in Van Horne's notes to the work of Botallus de vulneribus sclopetariis, and a third is recorded by Petit. The translator also cites a case in which the trunk of the carotid was tied with safety in consequence of a wound. These facts, together with the well-known result of the experiments on brutes, were strongly in favour of the safety of tying the carotid artery in cases of aneurism. The inference has been fully justified by the successful result of a case operated on by Mr. Astley Cooper.

The last chapter is on the subject of aneurismal varix, and contains a clear and summary account of our knowledge on that subject. Ten cases follow, which are instructive and interesting, although they contain no new matter.

We have met, in our perusal of Scarpa, with some observations, which do not give us a very high respect for the physiological and pathological notions of the author. We read, for example, of a 'parched temperament;' of an 'atonic aneurismal sac;' of the anastomosing arteries being in 'a state of atony, rigidity, and disorganization;' we are informed also of a fact, which we doubt extremely; viz. that persons who have had lues venerea, are particularly predisposed to the ulceration and disorganization of their arteries.

Having given an opinion on the general merits of this work which may be regarded as rather unfavourable, we are bound in justice to observe, that it contains a very large collection of facts on the subject, which would be found very useful by any person, who should hereafter write a treatise on aneurism. As we have not been fortunate enough to procure a sight of the original, we cannot decide on the fidelity of the translator. His language, although deviating in some instances from the standard of elegance and propriety, is clear and plain, and very well suited, on the whole, to the nature of the subject.

ART. II. *A Treatise on the Operation of Lithotomy; in which are demonstrated the Dangers of operating with the Gorget, and the Superiority of the more simple Operation with the Knife and Staff. Illustrated by Plates.* By Robert Allan, Surgeon, pp. 73. 4to. Murray. Printed at Edinburgh.

ART. III. *Observations on Lithotomy; being a Republication of Dr. James Douglas's Appendix to his History of the Lateral Operation for the Stone, and of other original Papers relative to Mr. Cheselden's Invention and Improvement of that Operation. To which is added, a Proposal for a new Manner of cutting for the Stone.* By John Thomson, M. D. one of the Surgeons of the Royal Infirmary, Professor of Surgery to the Royal College of Surgeons, and Regius Professor of Military Surgery in the University of Edinburgh. pp. 91. 8vo. Printed at Edinburgh.

THE modern operation of lithotomy may be performed with some little variety by different surgeons; but, with all, the object of the operation is precisely the same, viz. to divide the membranous part of the urethra, the prostate gland, and neck of the bladder laterally, so as to make an opening into the bladder, at that part which is opposed to the left side of the perinæum, large enough to admit the introduction of the forceps, and the extraction of the stone. The method employed by Mr. Cheselden was, to cut down on the groove of the staff, near its apex, through the neck of the bladder, and then to divide the above-mentioned part, by passing the knife forwards, towards the perinæum. Sir Cæsar Hawkins, with the view of improving this operation, invented the cutting gorget, which may be considered as a knife of a peculiar form—broad and concave above, so as to answer the purpose of a director to the forceps, and having its point so constructed, as to fit the groove of the staff, along which it is to be guided into the bladder.

Sir Cæsar Hawkins had great experience, and was an excellent practical surgeon; and though we should be sorry to rely on the *ipse dixit* of any one in surgery, or in any other branch of knowledge, the circumstance of an instrument being invented and used by him, would be alone sufficient to induce us to pause, and consider the subject maturely, before we rejected that instrument, as 'the most dangerous innovation in the whole mechanical department of surgery.'*

We find, however, that the use of the cutting gorget was not confined to the inventor; it was adopted by nearly all the surgeons of this country, and continues to the present day the instrument in common use in this metropolis, with practitioners high in reputation,

* Allan on Lithotomy.

and who, from their connexion with large public institutions, have the most extensive opportunities of perfecting themselves in operative surgery.

In ordinary cases, there can be no doubt that the operation of lithotomy may be performed as well with the knife as with any other instrument. The bladder, in the generality of cases, is sufficiently within our reach, and the opening into it with a common scalpel, is a simple operation, as easily performed as with a gorget, or in any other way. But we do not believe that this operation is equally easy in all cases. We have seen the bladder, in fat persons, at such a distance from the perinæum, that it was quite out of the reach of the finger introduced at the external wound. It is evident, that the scalpel can only be used with safety in parts which are completely within our reach, and it would therefore be very ill adapted for the cases to which we allude; whereas the cutting gorget, which does not require the hand that directs it to be near the point, is as well fitted for these as for other cases.

Every one will acknowledge that lithotomy is by no means a trivial operation. It requires at least as much skill, and coolness, and experience, on the part of the surgeon, as any operation in surgery. We cannot consider it as prudent in the surgeon to use an instrument at one time, which he would not use at another; since, by so doing, the experience, which he acquires in one case, will not avail him in the other cases which he meets with. We have shewn that the scalpel is not adapted for performing the operation in particular instances, and those of no very unfrequent occurrence; and on this ground alone, we should be led to prefer the use of the gorget in all cases, unless we find there are objections to it more serious, than our own observation has hitherto enabled us to discover.

Having made these preliminary remarks, we proceed to the consideration of the works before us.

Mr. Allan has given the public a book quite in the modern fashion. It is broad and thin, with a wide margin, a handsome type, and on hot pressed paper. Until we began to read it, we could hardly suppose it to be a book of surgery, but suspected it to be a volume of sonnets, intended to lie in a lady's dressing-room, and sent to us by mistake. On looking into it, however, we found, that although our first suspicions as to its nature were not quite right, they were not altogether unfounded; for the style is undoubtedly somewhat more poetical than is usual in books of surgery.

'The boldest and most confident operator,' says the author, 'shrinks when he drives his cutting director into the bladder; and surrounding spectators are struck with horror when they see the patient bound like a victim, and impaled with a gorget.' p. 2. We quote this passage, as it happens to be in the page now lying open before us; but we might quote others not very dissimilar from most pages of the work. Mr. Allan informs us, that he received his edu-

cation under Mr. John Bell, and it appears to us that this circumstance has led him to be an imitator of Mr. Bell's style: but the imitation is bad. The style of Mr. Bell is interesting and impressive: that of Mr. Allan is pompous and inflated. The former has strong views of things, and of course depicts them strongly in his writings; his disciple links strong words together, but with a very different effect.

After some preliminary observations, Mr. Allan gives a short description of the symptoms which indicate the existence of a stone in the bladder, and of the method of examining the bladder by means of a sound. He remarks, that the surgeon should never omit examining the patient by the finger introduced into the rectum, as, by so doing, 'he ascertains the size, situation, and even the shape of the stone. When the sound is therefore withdrawn, and the patient standing in an erect posture, he should be examined by the rectum; and no patient should be cut without this examination.' p. 8. We cannot say that we look upon this subject exactly in the same point of view with Mr. Allan. We believe that in young children the existence and even something of the size of a stone may be ascertained in this manner, and perhaps, in them, it is more convenient to examine the bladder thus, than by means of a sound: but in adults, owing to the thickness of the prostate gland, and vesiculæ seminales, as well as from the bladder not being so completely within the reach of the finger, we have never found that we could learn much respecting the size and form of the stone by this mode of examination.

Mr. Allan then proceeds to give a history of the different operations for the stone which have been in use at different periods of time. We find an account of the old operation of Celsus, commonly called cutting on the gripe; and of that of Marianus, or the operation with the *apparatus major*, which is perhaps justly designated as 'the cruellest and most bloody operation ever performed on the living body.' He then speaks of the operation above the pubes, and of the lateral operation, as performed by Frere Jacques, Professor Rau, and Cheselden. The account which he gives of all these different operations, is sufficiently clear; but, as they must be familiar to our surgical readers, we do not feel ourselves called on to detain them with this part of the work.

Mr. Allan then proceeds to the consideration of the Bistouri Caché and the cutting gorget, as instruments of lithotomy: and he boldly declares, that he would discard the use of the latter, and prefer any mode of incision to one so avowedly unsuccessful and so plainly murderous.

'Its dangers are many and manifest.

1. The beak of the gorget is apt to slip from the groove of the staff, before it reaches the neck of the bladder, and be driven into the pelvis. This has happened in the hands of good operators; and most assuredly will hap-

pen, if the surgeon depresses too much the handle of the staff, while he pushes the gorget forwards.

'2. If the operator pushes the gorget onwards too horizontally, the prostate gland, being moveable, will recede, the gorget slip from the groove in the staff, and be driven between the rectum and bladder.

'3. If the surgeon, or assistant, depress the handle of the staff too much over the right groin, according to the directions of modern writers, with the idea of making its bend or heel be distinctly felt in the left side of the perinæum, the point of the staff will slip out of the bladder; and when the surgeon has completed his external incisions, it will start through the membranous part of the urethra; and, in that case, pushing his gorget on by this false guide, he will drive it betwixt the bladder and rectum. I am confident this has happened in some cases I have seen, where the surgeon failed to extract the stone, and where, upon dissection, it was found that the bladder had never been cut.

'4. It is uniformly acknowledged by the best surgeons, that the gorget cuts the prostate gland very imperfectly. Its incision sometimes admits with difficulty the introduction of the forceps; and, if the stone is large, is quite inadequate to its extraction without dreadful laceration.

'5. If the cutting part of the instrument be made broad, to provide against the last accident, it enters the pelvis with difficulty, grates against the bone, by which the pudic artery is sure to be wounded, and the patient brought into danger by a hæmorrhagy, which generally proves fatal. This may also happen when the cutting part of the gorget is narrow, if the surgeon incline the staff too much on the left side, while he pushes it on into the bladder.

'6. Wherever the gorget enters the bladder, the patient feels an irresistible inclination to press downwards, by which the fundus of the bladder is pressed against the point of the instrument; and if it be kept long in the bladder, to serve as a conductor for the forceps, this generally happens. It is also possible for a rash surgeon to push it on with such a degree of violence, as to transfix the bladder.

'7. When the gorget has been successfully introduced into the bladder, and all the dangers avoided, which we have already enumerated, unless the operator be very careful in withdrawing it in the very position in which it enters, it will make another incision; and even this has been accounted a danger so formidable, that our professor of anatomy has invented a double gorget, to guard against this accident.' pp. 35, 36, 37.

Having fully stated Mr. Allan's objections to the gorget, we shall now consider how far they are to be regarded as valid.

Any instrument is mischievous in the hands of a person who does not know how to use it, or who is not accustomed to operations. In the hands of a bad operator, the three first accidents, which our author describes, may frequently occur. The gorget may slip out of the staff, the staff may slip out through the membranous part of the urethra, or the gorget may be driven between the bladder and rectum. But these accidents are not peculiar to the gorget; they may happen with the knife, or any instrument used carelessly,* or by a person

* A surgeon of eminence in this metropolis, with a view (as we suppose) to prevent the occurrence of the first of these accidents, employs in the ope-

unaccustomed to operations. We have seen the rectum cut, where lithotomy was performed with a knife, leaving an opening between the bladder and rectum, which remained pervious and fistulous ever after. The knife as well as the gorget may slip out of the groove of the staff; but we should not consider such an occurrence as a proof that the knife is a dangerous instrument in lithotomy; nor do we consider the gorget as a dangerous instrument, because there are some instances where a surgeon, from nervousness, or from inattention to the state of his instruments, has met with the accidents above mentioned.

Perhaps we shall be asked, 'Do not these accidents occur frequently, even in the hands of the ablest and most experienced lithotomists?' That they have occurred in such hands, we cannot hesitate to grant; but their frequent occurrence we positively deny, nay, we maintain their occurrence to be very rare: and, in support of what we advance, we appeal to those who have had extensive opportunities of witnessing the operation of lithotomy, not only in this metropolis, but in any of the large provincial towns of this country.

We are told that the gorget cuts the prostate gland very imperfectly. The degree in which the prostate is cut, obviously must depend on the breadth of the gorget; but we are told, further, 'that if the gorget is made broad, to provide against this accident, it grates against the bone, and wounds the pudic artery.' The pudic artery certainly cannot be often wounded in passing in the gorget, because it lies on the inside of the bone, and is defended by the projection of the latter. It may be wounded in drawing out the instrument, if the surgeon is not careful to withdraw it in the same direction in which he introduced it: but it may be wounded in the same way with the knife, or bistouri caché, or any other instrument, if the surgeon withdraws it in a negligent or a hurried manner. The same remark applies to the last of our author's objections.

The wounding of the fundus of the bladder is an occurrence so very rare, that we can hardly consider it as an objection worthy of notice; but even if it occurred more frequently, we could not regard it as more likely to happen with the gorget, than with other instruments. Indeed, if we are not much mistaken, experience would shew that the surgeon is more liable to meet with this accident in using the *bistouri cache*, than in any other method of operating.

If our limits would allow us, we should be disposed to enter much more fully into this part of our subject. Having, however, offered

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ration of lithotomy a scalpel, of which the apex is in the form of a beak, fitted to the groove of the staff. Is not this to all intents and purposes a gorget? Is it not to be used in the same manner, and must it not be liable to the same inconveniences which have been supposed to attend the gorget?

these remarks on the objections which have been made to the use of the gorget, we may be allowed to say a few words on what we conceive to be the advantages of this instrument.

We should consider the gorget as a knife of a peculiar form.

The point of this knife projects in the form of a beak, fitting the groove of the staff, and is therefore well adapted for being guided along that groove into the bladder. From the form of the gorget the surgeon knows, that as long as the beak remains in the groove of the staff, the incision must be made in a proper direction. The upper surface of the gorget, being broad and concave, serves as a director to the forceps, in introducing them into the bladder, which must at any rate be allowed to afford some convenience to the operator. In a very fat person the gorget has a peculiar advantage, as it is not necessary that the finger should be applied to the point of it, in order to direct the incision into the bladder. In such a person, where the bladder is only just within the reach of the finger, the operation with the knife must be performed with much more difficulty, and more at random, than with the gorget.

Having discussed the subject of the gorget, Mr. Allan proceeds to the mode of performing lithotomy with the knife. We have no particular objections to the rules which he lays down for this operation, and we shall quote his observations relative to the method in which the incision should be made into the bladder. The external incision being completed,

'The surgeon, raising the handle of the staff from the right groin, brings it to form nearly a right angle with the patient's body, sees that it is fairly lodged in the bladder, and again gives it in charge to his assistant. He now feels with the fore-finger of his left hand, the staff in the upper part of the wound, close under the pubes, and, a little further on, the prostate gland firm and fleshy. He then takes the scalpel, turns its edge towards the staff, and strikes its point into the groove, half an inch before the prostate, just at the place the operator usually enters the beak of the gorget; he then turns the back of the knife to the staff, slides it backwards and forwards in the groove, that he may be sure he has fairly entered; he then shifts his finger, places it obliquely under the knife, and carries it always before the point, to protect the rectum. Having adjusted every thing in this manner, he runs on the knife slowly and deliberately, through the prostate gland, giving it a lateral direction, and making an incision as large as he considers sufficient for the easy transmission of the stone.' p. 54, 55.

The last chapter of this work contains some common-place observations on the treatment of the patient subsequent to the operation; after which we find a series of plates, to illustrate the operation with the knife. These plates are engraved from drawings by Mr. John Bell, and they are preceded by the following observation, the style of which marks it as coming from the same hand with the drawing.

'These sketches represent what no man can ever see, viz. the manner in which the rectum is guarded, and the knife guided by the fore-finger of

the left hand, while the knife is struck into the urethra, and run onwards so as to divide the prostate gland. They represent what no one can truly draw, without being at the same time an anatomist, a practical surgeon, and a draughtsman. The parts cannot be so divided and so presented by the anatomist to the artist; what is here represented can never be seen, but only felt in the moment of operating, and can be represented only by one accustomed to operate.'

The object of Dr. Thomson's publication is nearly the same with that of Mr. Allan's, so far as recommending the disuse of the gorget, and the employment of the knife in lithotomy.—Whatever comes from a surgeon of Professor Thomson's high and well earned reputation, certainly has claims on our notice; yet we do not find ourselves called upon to give a very long account of the present pamphlet; partly, because we have already discussed the subject of it in our account of Mr. Allan's treatise; and partly, because by much the greater part of it is merely a republication of the original accounts of the different methods of lithotomy employed by Mr. Cheselden. Indeed, out of ninety pages, which the book contains, we find only six pages of original matter, independent of the dedication.

The operation proposed by Dr. Thomson differs from that proposed by Mr. Allan. We shall describe the principal part of it in his own words; after the incision is made into the membranous part of the urethra, 'a straight grooved staff is introduced into the groove of the curved staff, and pushed along it into the bladder. The curved staff is then to be withdrawn, and the surgeon, laying hold of the handle of the straight staff with his left hand, and turning the groove upwards and a little outwards, presses the back of it downwards towards the right *tuber ischii*, and holds it steadily in that position. The point of a straight backed scalpel being now introduced into the groove of the staff, with its cutting edge inclined upwards and a little outwards, is to be pushed gently forwards into the bladder.' After this the surgeon is to introduce his finger into the bladder through the wound, to ascertain the size of the stone; and, if he finds it necessary, to enlarge the wound with a probe pointed bistoury. The advantage of this method of operating with the knife is supposed to be, that it is unattended by any risk of wounding the rectum; and there can be no doubt, that that risk must be much less than in the common method of operating with the knife.

We would not wish that what we have said in our review of these two publications should be considered as implying that the operation of lithotomy, as performed with the knife, is one attended with danger. We have no hesitation in saying, that it may, in the generality of cases, be performed in this manner with perfect safety by one who understands the anatomy of the parts, and the object of the operation, as every surgeon should; but we are of opinion, that a knife of that particular form, which we denominate a gorget, possesses

advantages, which a common knife does not possess: at the same time we believe, that the disadvantages, which have been ascribed to the gorget, have been overrated, and are not peculiar to this instrument; and we therefore conclude, that the gorget is, on the whole, a preferable instrument of lithotomy to the common knife.

ART. IV. *The Principles of Surgery, Volume Third, containing a Series of Cases, calculated to illustrate chiefly the Doctrine of Tumours, and other irregular Parts of Surgery, and to instruct the young Surgeon how to form his Prognostics, and to plan his Operations.* By John Bell, Surgeon. 4to. pp. 298. With many plates. Longman & Co.

AN author, professing, like Mr. Bell, to instruct, by his writings, the students of so extensive a science as that of surgery, should avail himself of every aid, which could be derived from a judicious selection and careful arrangement of his materials. He should studiously avoid unnecessary prolixity, and the introduction of all extraneous topics. If he undertakes to explain the principles, and thence to deduce the practice of surgery, he should be well acquainted with the writings of his predecessors and cotemporaries, and should possess great practical knowledge, as the only means by which he can duly appreciate their merits. Our author is deficient in all these particulars. To methodical arrangement he is decidedly adverse, as the enumeration of subjects, discussed in the three volumes of his 'Principles,' already published, clearly proves. His hostility to method is not, however, confined merely to the distribution of the grand divisions of his subject, but extends also to the mode of treating each division, giving rise to perpetual repetitions and to much confusion. Mr. Bell offends still more grossly against our second and more important condition; his fertile pen has already produced nearly two thousand fair and honest quarto pages, on a small part only of his subject. We should be the last to complain on this account, if the matter were good; but it is really too shameful an experiment on the credulity of the public, to ask eleven guineas for such a coarse commodity, and such careless workmanship, as the article in question exhibits. The author is equally deficient in the two remaining qualifications: although he often refers to old works of obsolete authority, he neglects many modern and much more valuable sources of information; and every chapter furnishes us with proofs, that his opportunities of gaining practical skill have been few and limited. He falls too into the error of considering the small number of cases, which have come under his own observation, as a representation of general experience; and this, joined to a great

propensity to generalization, leads him to describe anomalous and unusual diseases, as matters of common occurrence. The present volume contains repeated examples of the latter observation; insomuch, that a very large proportion of the book is occupied with long details of rare cases, represented as what the surgeon may expect to meet with in his ordinary practice.

The preceding observations are extorted from us by a sense of duty. Let those, who consider them as severe, reflect on the serious consequences which must result from placing an improper elementary work in the hands of students; let them remember, that unnecessary sufferings, and even loss of life, are the frequent consequences of erroneous surgical principles, and they will allow, with Mr. Bell, that this is a case in which 'professional ceremonies' should yield to essential charities.' We perform a much more pleasant office in pointing out the excellencies of our author. Possessing a natural talent for observation and description, he selects the leading features of a disease, and delineates them in a very animated style. His narratives possess a degree of spirit, which renders them constantly interesting, while they are too often unnecessarily prolix. Hence, although he gives up all the advantages which systematic arrangement would afford, he escapes the too frequently attendant fault of systematic dulness. But Mr. Bell cannot be moderate in any thing; he abuses his own facility of description, and fully justifies the remark of the Roman satirist,

> ——————Torrens dicendi copia multis,
> Et sua mortifera est facundia.

His ardent and poetic mind, not contented with sober truth and a plain detail of symptoms, overcharges all the features of disease, exaggerates every character, and produces in many instances downright caricatures,* instead of correct likenesses. We have heard from every quarter, that Mr. Bell appeared to peculiar advantage as a lecturer; and we can readily conceive that his lively style, the happy ridicule with which he treats the doctrines of the schools, and the very extravagance of his manner, would engage the attention of the student, when fatigued with the solemn dulness of academic professors. We regret that he should have deserted a situation, where his labours might have been really useful, for an undertaking so entirely foreign to his talents and habits, as that of writing systems.

Mr. Bell introduced himself to public notice in a set of 'discourses

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* In describing a disease of the bones of the hand, the fingers are compared to the 'claws of a griffin.' We are told of the 'milk glands being in knots and clusters, as distinct as stones in a bag:' and of the peritoneum, in the hernia of an old beggar, being 'as thick as his leather [*leathern*] bag, and as coarse and rigid in its texture.'

on the nature and cure of wounds.' The favourable reception of this work was fully justified by its intrinsic merits; and we should have given our tribute of unqualified approbation, had the author followed this by equally well executed essays on the same plan. But the success of this first attempt led him, in an evil hour, to form a most erroneous estimate of his own abilities, and to suppose himself able to instruct the whole profession. He dilated the materials of a moderate five shilling octavo with such an immense proportion of extraneous and irrelevant matter (much of which would have been more appropriately placed in the pages of a jest book), as to expand it into a very bulky five guinea quarto;—and called it 'Principles of Surgery.' The successive parts, which have appeared in prosecution of this plan, are constructed in the same way, and the present is certainly the worst of all.

As this volume treats of the 'irregular parts of surgery' (a division of the science, which we never heard of before), it would perhaps be unreasonable to expect, that the titles of the chapters should express the nature of the subjects, and that the reader should be assisted by any index or table of contents; the irregularity of the subject may be considered as a justification of the irregular mode of treating it. The consequences, however, of this consistency in the title and arrangement of the work, are very troublesome to the reader, who finds it necessary, in order to discover any particular case or passage, to wade through the whole chaotic mass.

We cannot pass a more favourable judgment on the engravings, with which this volume literally abounds, as we are unable to specify a single one, that is either necessary or instructive. Those, which are to be considered as anatomical representations, are too confused and indistinct to convey any precise notions. A great number of them is devoted to the subject of polypus of the nose; and much useful information would have been conveyed by correct delineations of these tumours. But none of the material points are represented here, many of the figures being plans of what Mr. Bell *supposes* to have been the form, size, and attachment of the polypi. What degree of reliance ought to be placed on the accuracy of these plates, is obvious from one history, in which, after describing the complaint according to his sketch, he informs us, that at a subsequent period he changed his opinion of the case, and considered it to be quite different from the representation in the plate.* The number and size of the engravings are much increased by the representation of several subjects, which could have been perfectly understood without this assistance, by including the whole person of the patient, when the disease affected the hand or knee only;† and by

* Page 167 and 168, and fig. 6.

† See the plates opposite p. 40 and 80, and in various other places.

introducing copies of engravings from other works.* Still, if the drawings had been accurate, and necessary for the illustration of the subject, many of them would be altogether useless, from the inextricable confusion of the references. Between twenty and thirty figures are mentioned in the text, which, after repeated and careful search, we cannot discover in any of the plates; while, on the contrary, many figures are neither numbered nor marked with any letters of reference.†

Mr. Bell adopts two practices, which must very much assist an author who has undertaken to write a certain number of quartos.—The first is that of making large extracts from other books, when every purpose might be answered by a mere reference; thus we have an immense quotation from White's Cases, at p. 30 and 31; another from Richter, at p. 130, where we are favoured with the original, as well as with a diffuse translation, or rather paraphrase; a long case, transcribed at full length from the memoirs of the Academie des Sciences, merely to shew the spontaneous cure of a carotid aneurism; and ten continued pages of extract, in one quotation, beginning at p. 133. An excessive prolixity in relating cases, is another very efficacious means, adopted by Mr. Bell, for eking out his volumes. Not satisfied with the most copious detail of every particular, which can be brought to bear on surgery, he enters at length into the patient's history. Thus we are informed that 'Eleanor Fitzgerald, a native of Ireland, a Roman catholic, born in the county of Carlow, and now about fifty years of age, was carried by her parents, when a child, to Charlestown in South Carolina, to which place they emigrated. There, when grown up, she married a ship-carpenter, and lived with her husband in Charlestown fourteen years, where she bore him several children. She is a woman of a very singular appearance, her face of a gypsey or rather Tartar cast, with thick lips, a peaked nose, small eyes, and a wrinkled forehead; bears the marks of a variety of climates; her complexion is of a deep yellow or dingy colour, sun-burnt and freckled,' &c. That 'about five years ago she embarked with her husband for London, his native place, at Charlestown, in the ship Charming Nancy, Captain Stewart, a storeship, crowded with more than 150 people, passengers and crew.' After a long and equally interesting account of her further peregrinations and adventures, Mr. Bell says, that, whether her tale be true or false, or all her history as fabulous as the voyages of Synbad the sailor, is to us a matter of no concern:—an observation in which we perfectly concur, regretting only, that he

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*Three whole plates are copied from Mery, Severinus, and Meekren, for no reason that we can even conjecture.

† This is the case in three figures of the plate facing p. 123; in the plate p. 151; and in two figures of the plate at p. 242.

had not made the discovery before he had filled four large quarto pages with these details. The case of a boy, in the third discourse, affected with swellings of the bones of the hands and fore-arms, which the author acknowledges from the first to have been incurable, occupies ten pages. It is opened by a long letter from the child's father, in which he considers at some length whether the complaint may have arisen from rickets, foul milk, or premature attempts at crawling. This is answered by a letter of consultation from Mr. Bell and Dr. Monro, advising a course of mercury. Then follows a long description by Mr. Bell, and afterwards a second letter of consultation to the father, endeavouring to reconcile him to the dispensations of Providence; referring him to the academy of sciences and Vanderwiel for parallel cases; discussing the use of stimulants, restringents, compresses, cauteries, &c.; informing him, that the complaint is an *atheroma nodosa!* and that all attempts at cure are utterly hopeless. Mr. Taylor's case, p. 94, et seq. extends over fourteen pages; although it consisted only of a cancerous tumour of the gum and cheek, which grew again, in consequence of imperfect removal by the first operation. This single case is illustrated by four entire plates. We mention these instances merely to justify our remark; all the other cases are related in the same way; a plan which goes far towards disclosing the mystery of writing quartos on the principles of surgery.

'The excellence and importance of this department of surgery' is the title prefixed to the first discourse. Among other preliminary matter, we are presented here with long desultory exhortations to diligence and industry; the necessity of using every opportunity of practical information is inculcated; and the moral duties of the surgeon considered. All this might be very proper and allowable, if it were stated, once for all, at the commencement of the work; but we must really complain of Mr. Bell's practice of repeating it at the beginning of every part. These moral exhortations are not sufficiently entertaining to interest us on the fifth or sixth perusal.

A direct contradiction occurs in one important practical point, discussed in this introductory chapter. In one passage the author speaks of allowing mild and harmless tumours to grow; and, almost immediately after, affirms that no tumour is harmless; that none should be allowed to proceed; and that all swellings increase until they affect the adjacent parts, and bring the patient to his grave.

Whatever judgment the public may pass on the value of Mr. Bell's labours, he himself appears to have conceived a very exalted notion of their utility and importance. He represents the present work as filling up a vast chasm in surgical science. 'Whatever is anomalous in any science, or lies out of the direct line of system, is in danger of being little cultivated or valued; so it has been with the surgery of tumours. In elementary books you find no depart-

ments allotted to this subject; in the records of societies, or the works of learned collectors, you find no plain and homely cases representing the ordinary duties of the surgeon; nothing of the treatment of an abscess; the obliteration of a sac; the anatomy of a tumour dangerously connected with the surrounding parts,' &c.—'Be assured that the talents for this department of practice are not to be learned at colleges and schools, nor to be acquired by experience.' p. 5. If, then, neither books, nor teachers, nor experience, can bestow the requisite information, our only remaining resource seems to be in the present work of Mr. Bell. 'To books (says he) I make no appeal.' p. 3. 'Whenever I write on professional matters, I write not conjectures, but experiments, facts, and precedents.' p. 296. The assertions contained in the first of these quotations are as glaringly false, as the latter representations are arrogant and conceited. Mr. Bell may not, perhaps, have seen the 'Novum Systema Tumorum' of Plenck, but he must know Mr. Abernethy's 'Essay on Tumours,' and the labours of Mr. Burns and Mr. Hey, on the fungus hæmatodes; nor can he have been ignorant of the vast number of recorded cases, the mere references to which, fill nearly twenty pages of Ploucquet's Bibliotheca. If he has read the systematic writers, of whom he speaks so lightly, and of whom we may mention Richter and Callisen, he must also be aware that these subjects are treated in their works.

Of this introductory discourse we shall only observe further, that it professes to give a preliminary sketch of the subjects, which are to be treated in detail in the body of the work. Tumours of the skin, eye, breast, testicle, &c. are here enumerated, but they are entirely omitted in the subsequent parts of the volume. Indeed, of tumours, in the most usual acceptation of the term, that is, of the sarcomatous and encysted growths, which occur in the cellular membrane, as well as those of a cancerous nature, no mention whatever is made in the whole work.

In the 2d discourse Mr. Bell promises to describe the characters, forms, and effects of tumours; observing, that it would be not less vain than idle to inquire into the laws of nutrition and secretion, which regulate the morbid increase of action from which tumours arise. A person who has perused any of Mr. Bell's writings, will not be surprised at finding, that he says nothing on the first of these subjects, and devotes the whole of the discourse to the latter. We have entire pages of verbiage about distensions and extensions of parts of the living body, distraction of the living fibres, nutrition, secretion, &c.; and long remarks on varix, aneurism, enlargement of the uterus in pregnancy, of the stomach and bowels in gluttons, of hydrocele, &c. &c. all which are represented as parallel cases, and as coming under the general notion of tumours. One opinion, however, we can collect clearly—that our author adopts the vulgar notion, that tumours grow by roots. Hence he constantly speaks of

cutting or tearing out the roots, of leaving them behind, and of their being entangled and woven in with arteries, veins, or nerves. As we have never been fortunate enough to see these roots, we wish they had been more clearly described, since their removal in operations seems to be so very important.

Polypus of the nose occupies the fourth and fifth discourses.—These exemplify very well both the characteristic merits and defects of our author. Many passages are very animated and interesting, and exhibit lively pictures of the difficulties which may be expected in practice—representations which would fix the attention of a student more effectually than the most laboured formal disquisition. Mr. Bell begins with contradicting the common opinion concerning the cancerous nature of polypi. He regards the division into the mild and malign species as unfounded; and represents the difference of symptoms, as arising from the local circumstances of the tumour in its different stages. Invariably mild and void of pain in its early period, it produces afterwards, as invariably, by pressure on the surrounding bones, caries, hemorrhage, distillation of a fetid ichor, excruciating pain, and all the commonly described symptoms of malignity. Contradictory statements, however, obtrude themselves on us here, as in other parts of the work. After being informed that polypus is at first always mild and harmless, we afterwards find it asserted, that stupor, from pressure on the brain, is one of its earliest signs. Again, it is a point most earnestly and repeatedly inculcated, that polypi are numerous in all cases, and that they never appear as single tumours: but in another place we find it stated, that full-grown polypus is generally single. There is the most glaring inconsistency in the description of the application of a ligature to the polypus from the mouth. 'An operation' (says the author) 'so effectual and radical, and yet so little alarming, I do not know.' He then compares it to tying a wart on the surface of the skin. We extract the description of this simple and easy operation from the same page which contains the preceding account:

'The patient strains and suffocates during the attempt; however long it lasts, breathing is suspended; the eyes are filled with water, the blood gushes from the mouth and nostrils, the fingers, or rather the hand, of the operator, is driven deep into the throat; and the patient is held staring and struggling, at once terrified for suffocation, excited to vomit, and alarmed and pained by the pushing of the operator, who is obliged to push his finger deep, before he even feels the tumour behind the palate, who grapples hard before he gets the lower part of it within the grasp of the fingers, and pushes still more violently, and struggles much, before he can pass the loop of the wire beyond and over it: it is a painful, and, to the spectators, an apparently desperate and unavailing struggle.—Like the operations of midwifery, such as turning the child, or dilating the womb in floodings—this requires a degree of strength, and a sort of cruel violence, which the inexperienced surgeon cannot allow himself to use.' p. 161.

Mr. Bell constantly delights in dwelling on the cruelties of the old surgeons; but his own treatment of polypi is inferior to none in the roughness and violence of the methods. After removing all that he can tear away with the forceps, he introduces knives 'to cut up the roots;' and speaks as familiarly of extirpating, by this means, such as lie far back in the nose, or are attached to the arches of the palate, as if it were a common and practicable method.—'No incision made with these knives, even if it were directly into the membrane and among the spongy bones, could be dangerous, and therefore they should be employed freely.' p. 123. But Mr. Bell's boldness with his knife is downright timidity, when compared with his cauterizing plan. 'When all is done that knife or forceps can do, I proceed to use the caustic, and with this conviction, that I should be very indifferent indeed, whether I destroy the polypus only, or the spongy bone, or much of the membrane, if but the polypus be destroyed. However confident I am of having extirpated the tumours by my preliminary operations, I never think it superfluous to burn the roots, but apply the caustic the more boldly, when, by the frequency of my operations, I am sure of being able to mark the points of the nostril at which I have to expect the roots of the polypi. To apply the caustic effectually, you must apply it boldly; and if you consider the important object to be attained, you will be careless although it should affect the spongy bones; or rather you will be fearless of every thing, but the error of not applying it effectually.' p. 125, 126. The method of using the caustic is so singular, that we must state it, as nearly as we can, in our author's own words, or the representation would hardly be credited. First, then, let it be understood that the forceps and knife have been employed with the greatest freedom. A piece of lint, dipped in a paste of melted caustic, is thrust up the nostril by means of a probe or director. 'On the slightest sense of disappointment, I withdraw it and begin anew.' When it has arrived at *the part* (in determining which point, however, Mr. Bell gives us no instruction), 'I impress the caustic very firmly; for the instant it touches the naked surface, the eyes fill with tears, the patient draws a long breath, and *sneezes tremendously*, and instantly displaces it; but if you press firm, this first irritation goes off; if you have passed it far beyond the strait of the nostril, (query, where is that?) and up to that point where always I conceive the roots of the tumour to lie, it seldom is driven away by any future paroxysm of sneezing.'—'The moment the caustic is placed, and the sneezing over, I instantly *cram the nostril full* of little dossils of lint; for if this be not done, the nostril and upper lip are *severely corroded and excoriated.*' p. 127. Still more securely to prevent the melted caustic from running down, Mr. Bell 'rams the lint hard into the nostril at each dressing.' The caustic is used in this way every second or third

day for a month; and the knife is again employed in the intervals of the caustic applications. With a view probably to diversify the proceedings a little, Mr. Bell occasionally adopts the following method. He wraps a big curved iron probe round with lint, or mounts it with sponge, and runs it, thus guarded, down the nostril. 'I make it so large, as not only to fill the nostril, but to pass through it with great difficulty; and, by forcing it through the slit of the nostrils, quite back to the palate, I often force off these remains of polypi, which are already half consumed, or imperfectly cut.' p. 128.—Our author then declares solemnly, that of many patients whom he has treated, very few have returned to put themselves under his care;—a circumstance so very probable in itself, that we could have believed it on the faith of a much less formal asseveration.

We have already noticed the great length to which Mr. Bell's cases extend; but we have a heavier complaint to make of them. We cannot give credit to these narratives, from the numerous contradictory and inconsistent statements with which they abound. We shall select the case of Mr. Cameron, p. 168, in order to substantiate our charge; and we extract the first part of this case, as it exhibits very strikingly Mr. Bell's talents for description:

'When first I visited Mr. Cameron, his whole form and countenance and state of suffering struck me: he was a fine young man, about twenty-five years of age, tall, athletic, and had been noted for his strength in all kinds of exercise and feats of strength. His form was emaciated, his face deadly pale, with a ghastly transparency of skin, which gave his countenance the appearance of modelled wax: this proceeded from the frequent loss of blood. There was a remarkable torpor and heaviness in the eyes, which were half closed; for hemorrhagy brings on a languor and sleepiness, which, in a case like this, is increased by actual disorder of the brain. His nose was inclined much to one side, and his face greatly deformed, not merely by the rising of the cheek bone and the dilatation of the nostril, but from the swelling of the whole right side of the head, which seemed universally enlarged. The right eye was turned obliquely in its socket, and almost closed; a large and massive branch of polypus projected from the right nostril; and looking into the throat, I saw the soft palate pressed forwards by a second polypus as big as the fist: from continual pain of the caries, the tears streamed unceasingly down his cheek, so that he saw confusedly; the saliva flowed continually from his mouth, and involuntarily; while a foul, black, and corroding sanies distilled from the nostril, and excoriated and swelled the upper lip. He said his head was continually tortured, as if squeezed from temple to temple in an iron vice. He sat pale as a spectre, hanging over the fire, though in the hottest season of the year, his knees almost touching the grate, resting his head upon his hand, and moving it to and fro with continual agony, moaning and complaining. His visage was pale, his lips bloodless, and every thing about him denoted despair, and the most perfect indifference about life. He was so deaf, as to be insensible to the loudest noise; you could scarcely make him understand you, even when you hollowed in his ear; he was unconscious when any one entered the room, or shut the door; his teeth were loose on the affected side, and some had dropped from their sockets; he was able to swallow

liquids only; and partly from this cause, but rather from despair, he refused all sustenance, drank only water to slake his thirst; and to every kind and encouraging expression he always replied, he knew he could not be cured—he wished he could die.' p. 168, 169.

After this representation of the miserable state of the patient, the conclusion seems very just, that 'little could be done to prolong life; and to save it, nothing but a miracle could avail.' An operation, however, was undertaken, in which a polypus 'as big as the fist' is said to have been surrounded by ligature and destroyed.—The patient seemed entirely restored; his pains vanished, his appetite and strength returned, and he flattered himself with hopes of a cure. But in less than a fortnight the tumour returned again, and the following is Mr. Bell's description of the state of the nose: 'When I grappled with the tumour in the throat, it recoiled into the nostril; when I resisted this, by plunging a finger deep into the dilated nostril, and met and resisted the tumour there, it seemed to recede into the antrum Highmorianum; and when I pursued the now moveable tumour, with the finger among the cells, I found, to my inexpressible horror, that every bone and bony cavity was entirely carious: the partition, which divides the antrum from the cavity of the nose, was quite destroyed: the polypus occupied the cavity of the antrum: the edge of the vomer rough, carious, and disengaged from its cartilage, met the finger, and the nasal branch of the upper maxillary bone was rotten: the polypi felt soft and mucous, and the whole seemed to be one mass of corruption.' p. 172. The forceps and other means were used to clear the nostril; the patient again recovered, but the disease recurred in a few days, and was again removed. 'But I may say,' continues Mr. Bell, 'my finger was hardly out of the nostril, ere the tumour began again to protrude.' A last attempt with the actual cautery was in meditation, when death rescued the patient from the surgeon's hands.—That the different parts of this narrative are so inconsistent as to be utterly incredible, will be immediately evident; but the dissection sets the falsehood in a still stronger light. The polypi, which had been three times removed, are represented, in the drawings, untouched and unhurt, of their original size, (much smaller, by the bye, than any *fist* we have ever seen): the septum narium, which had been destroyed by the caries, is entire. The whole account, therefore, of the destruction of the polypi, and hunting of the tumour among the bony cells, is fabulous, and owes its origin to the imagination of the author, who boasts that he writes nothing but facts and precedents. We have not selected the observations on polypi as being particularly faulty; for they really are not worse than the rest of the work: nor have we pointed out all the absurdities contained in this division; for our article would then have extended to ten times its present length: we give an account of this part, as a specimen of the general execution. To expose all the ob-

jectionable matter in the volume, would be entirely inconsistent with our plan: each page would then need a long commentary; and the undertaking would be no less unprofitable to our readers, than fatiguing and disgusting to ourselves. Ex uno disce omnes, may be most truly observed of Mr. Bell's 'Principles of Surgery.'

Some affections of the rectum are considered, by a very strange kind of arrangement, in the sixth discourse, which is entitled, 'on tumours of the gums, lips, cheeks, and throat.' The treatment is quite as extraordinary as the arrangement. We are informed, that cutting away the whole verge of the anus is often necessary, and not only perfectly safe, but even productive of very little inconvenience. We have the case of a tumour thirty inches in circumference growing from the anus, and 'extirpated by ligatures driven through the verge of the rectum with a common *embowelling* needle.' The circle of the anus was entirely destroyed, the patient never complaining, nor even suspecting the slightest inconvenience! p. 192.

The case of tumour in the neck, at p. 221, is hardly reconcileable with our author's boasted operative boldness, and repeated flourishes about sympathy and humanity. Although a consultation had decided that no operation was advisable, Mr. Bell affirms, that 'there are very many safe and easy ways by which this tumour could be destroyed.' After all this parade, he leaves the patient to her fate, coolly observing, that she probably died, as thousands have died, of protracted suffering. He then occupies six pages in explaining how the swelling might have been removed.

We shall conclude our review of Mr. Bell by simply enumerating, as matter of curiosity, the subjects of the seventh discourse 'on salivary tumours.' Various swellings in the neck, that could not even be suspected of having any connexion with salivary glands: ranulæ: aneurism from anastomosis, as occurring in all parts of the body, being a repetition of the remarks on the same subject in the first volume of these 'Principles:' bronchocele, under the epithet of aneurism from anastomosis: aneurism of the carotid artery, a case of which was allowed by our author to terminate fatally without even an attempt at an operation: abscesses about the larynx and pharynx; effusion of blood into the eye-ball; and various other incidental topics, both of a physiological and pathological description. Horace must surely have had such a chapter in his contemplation, when he wrote the beginning of his poem *De Arte Poetica*. The same character belongs to the whole book, which is exactly of that kind,

> ——— 'Cujus, velut ægri somnia, vanæ
> Finguntur species; ut nec pes, nec caput uni
> Reddatur formæ.'

ART. V. *Essays on the Morbid Anatomy of the Human Eye.* By J. Wardrop, Fellow of the Royal College of Surgeons, and of the Royal Medical and Chirurgical Societies, of Edinburgh. Illustrated by plates. 8vo. pp. 159. Murray. Printed at Edinburgh.

THESE essays contain the first attempt which has been made in this country, to apply the pathological doctrines of Bichat to the elucidation of local diseases. In some preliminary observations, Mr. Wardrop has given a correct summary of the leading ideas on the structure and functions of the animal body, contained in the 'Anatomie Generale appliquée à la Physiologie et à la Medecine' of this acute and able writer. We shall not now consider the merits of this monument of his industry and genius, nor lay before the reader any portion of Mr. Wardrop's abstract, as the subject is too extended for our present inquiries, and as no short account, however well drawn up, can convey any just or adequate idea of a work, in which every page is filled with variety of matter, which should be studied in no words but in those of its author. The importance of his doctrines, as far as they regard the morbid anatomy of the different organs, is so strikingly exemplified, the farther our researches are carried, that we shall hope to see them still more extensively cultivated in this country.

In pursuance of the plan thus laid down, Mr. Wardrop divides diseases of the eyes into two great classes.

'The *first* shall contain an account of the morbid changes of each separate structure, which enters into the composition of the eye; and the *second*, an account of those diseases which have a specific character, and have symptoms peculiar to themselves, in whatever structure they appear; or which, when they attack the eye, affect a greater or a less number of its different parts at the same time.

'Under the first class will be comprehended, the diseases of the cornea, iris, aqueous, vitreous, and chrystalline humours, optic nerve and retina, choroid coat, sclerotic coat, conjunctiva, and cellular membrane, tarsi, and palpebræ, lacrymal gland, and caruncle.'

'Under the second class will be included, rheumatism, cancer, scrofula, lues venerea, exanthematous ophthalmia, &c.' *Prelim. Obs.* p. 30, 31.

Very little progress has hitherto been made in executing this plan; the present essay embracing only the morbid affections of the cornea: 'if the public should approve of this essay, it is the author's intention to prosecute his plan, by considering the remaining diseases of the eye and its appendages, and the treatment which such diseases require.'

The merits of the arrangement will depend almost wholly on the degree of consequence attached to the system from which it is derived. In this point of view, it will hardly form an object of discussion here: such of our readers as may already consider the

doctrines of Bichat as entitled to attention, will be pleased at this first attempt to clothe them in an English garb. We shall, as we proceed, take occasion to notice more particularly the instances in which these reasonings are applied. If not demonstrative, they are at least ingenious.

The first chapter contains some general remarks on the structure of the cornea, taken evidently from the description given in the *Anatomie descriptive*. Our author differs from Bichat in considering the membrane, which secretes the aqueous humour, as belonging to the serous class, which, however, it resembles only in its tenuity and transparency. Mr. Wardrop assigns no reasons for this opinion, on which he has nevertheless founded one of his distinctions of inflammation of the cornea, and which he has assumed, as demonstrated, when considering some other morbid affections of the eye. We are presented, in the second chapter, with a very minute description of the inflammation of the corneal conjunctiva, and with the diagnosis between it and speck or pustule of the cornea. This is followed by a similar account of inflammation of the proper substance of the cornea, producing that diminished transparency of the part, remaining after the inflammatory symptoms have disappeared, in which we observe an opake speck surrounded by several red vessels. Of inflammation of the membrane, which lines the internal surface of the cornea, he says but little, having had no opportunity of observing it with sufficient accuracy. Our readers will not perhaps agree with Mr. Wardrop in the necessity of making this subdivision of affections, where, from the difficulty of discriminating the precise extent of the disease, no difference of treatment can be adopted; nor will they immediately allow, that 'this distinction involves very important consequences, both in a pathological and practical point of view.' Still the descriptions are given with spirit, and bear the evidence of being faithfully copied from nature; and we are disposed to praise every attempt which can lead to the speedy removal of the inflammation of this delicate organ.

In the third chapter, we have a perspicuous description of the pterygium. The account of caruncles, or fleshy excrescences of the cornea, which follows, contains histories of various tumours originating from this part, extracted from different authors: among these are some instances where long tufts of hair grew from such excrescences, and projected through the opening of the eye-lids. Pustules of the cornea are next considered; and Mr. Wardrop is very minute in his description. He thinks it 'highly probable, that the pustules of the cornea and white of the eye much resemble the small pustules, or aphthæ, as they are called, which are so frequently observed in the cavity of the mouth, on the tongue, lips, and on the internal surface of the alimentary canal.' p. 43. This chapter is concluded by the quotation of some remarks from Professor Himly, of Brunswick, which strikingly illustrate the analogy of these affections.

In the sixth chapter, Mr. Wardrop treats of abscess of the cornea, and anterior chamber. In the latter case he considers it probable that the puriform matter is produced by some secreting organ; and he supposes it to be the membrane which secretes the aqueous humour. We have frequently observed this secretion of pus into the anterior chamber in horses, where it appears in the form of a large yellow globule, lying at the inferior part, but extending in many instances so as to cover nearly the whole pupil. In these cases there is evidently no ulcerated surface, and we can only suppose the pus to be secreted by the vessels which supply those parts.

Ulcers of the cornea form the next subject of inquiry, and are treated with the same attention to minute varieties in their appearance, which marks the whole of Mr. Wardrop's work. These ulcers have a very striking analogy to those which form on other mucous surfaces, or on those delicate inflections of the skin, which exist at the mouth, prepuce, &c. 'The healing process of ulcers shows, that the cornea, like most other textures of the body, is capable of cicatrization. In most cases this process seems to advance little farther, after the principal part of the cavity of the ulcer is filled up, and a plain surface formed; so that, even after all symptoms of disease have abated, a small dimple or inequality of the cornea remains. If the ulcer has been small or superficial, the depression is almost imperceptible; but when it has been of considerable size, the inequality of surface is distinct, and, if it is situated opposite to the pupil, it is very apt to render vision obscure. The portion of cicatrized cornea, it ought to be remarked, is not only unequal, but is by no means in all cases transparent; for it often happens, that an ulcer leaves a *speck* of the most opake and incurable kind.' p. 62, 63.

The three following chapters are filled by descriptions of wounds of the cornea, of foreign bodies adhering to it, and of ossification of the cornea. The speck is next considered; and we think the author has acted wisely in disregarding the old names, which marked its difference by such terms as albugo and leucoma; and in reviewing all its forms under the general appellation of speck of the cornea. We have a lengthened account of its varieties and formation, which many will think unnecessarily drawn out. To describe mere variations of figure, would be a never ending and an useless labour: distinctions, which originate from any difference of texture, may lead to much practical utility. This is followed by an account of the appearances of speck, on dissection.

'No other change,' the author observes, 'is to be perceived in the cornea, after death, than a diminution of transparency, either of the external lamellæ, or of the whole substance.' p. 93. He adds, 'that an incision made into the healthy cornea, gives little or no uneasiness; but when a portion of a speck is removed, it often excites acute pain.' *Ibid.* We shall extract the account of the causes of speck, as it presents the reader with a good specimen of the author's manner,

includes several practical hints, and introduces an application of Bichat's opinions to one of the diseases of the eye.

'As the deposition, or effusion of the albuminous part of the blood, is a common effect of inflammation, in many organs of the body; and as this change produces a diminution of the transparency of the serous membranes, it is probable, from the analogy in the natural structure, that it is a similar change which takes place in the cornea, during the formation of specks. This effect of inflammation is very remarkable in the pleura, after an attack of pleurisy; in the peritoneum, after peritonitis; and in the membranes of the brain, after phrenitis; for on dissection it is invariably found, that there is not only an effusion of albumen on the surface of the inflamed membrane, but the membrane has become thicker, changed its colour, and lost its transparency.

'It is perhaps difficult to determine, whether this new matter, added to the diseased membrane, be effused among its layers; but it appears to me the most probable opinion. It has been already remarked, that the cornea is composed of a number of concentric cellular lamellæ, and that there is a fluid deposited in the cells by exhalation. It is, therefore, in the cellular structure, in which this fluid is contained, that the albumen may be deposited, the cells being like as many serous surfaces, and therefore subject to similar morbid changes.

'An opacity may also be produced by the cornea losing its vitality. This change may arise either from the inflammation of the cornea being so violent as to terminate in the death of the part, or from the action of caustic substances, such as lime, lunar caustic, &c.

'It is also probable, that the cornea may become obscure, in consequence of an alteration in the quantity of the contents of the eye-ball producing a change in the arrangement of its component particles. In the dead body this change is very remarkable; for if pressure be applied to the eye-ball, or if the ophthalmic veins be injected with quicksilver, or pure water, so that the quantity of the contents of the eye-ball is increased, the cornea is found to lose its natural transparency, and to acquire a milky colour. As it was probable, from this curious phenomenon in the dead eye, that, in the living body, some opacities of the cornea might arise, from an increase in the quantity of the contents of the eye-ball, it occurred to me, that in cases of this kind the opacity might be removed, by making an incision through the cornea, and discharging the aqueous humour. That a certain degree of opacity of the cornea in the human eye is sometimes produced by a mere derangement of its component particles, is proved from the immediate effects which followed the discharge of the aqueous humour, in cases where the opacity had a general clouded appearance over the whole cornea, besides some defined spots at particular places. In some cases of this kind, the instant I discharged the aqueous humour, by a small opening made into the cornea, I observed that all the general obscurity disappeared, and nothing remained but the mere opake spots, which became more distinctly circumscribed.

'In the lower animals, I have had several opportunities of observing the cornea affected with a general obscurity and cloudiness, which was not like the common speck, but more resembled that obscurity so easily produced artificially in the dead eye, by injecting the vein, or by the application of pressure. A disease of the cornea very similar, is common among sheep which have made very long journies, or have been much fatigued; and although the opacity of the cornea in them is accompanied with little apparent inflammation, or fulness of the vessels, its transparency is quickly

restored by the common practice of the shepherds, which is opening a vein at the inferior part of the orbit, and allowing the blood to flow over the eye. The same kind of obscurity of the cornea is by no means unfrequent among dogs and horses.' p. 94—98.

The succeeding account of the staphyloma is very happily given; and, were we not prevented by its length, we should probably gratify the reader by transferring it to these pages. The author takes an opportunity of hinting at the benefits which arise from the discharge of the contents of the eye, affected by this form of disorder, which is very well illustrated by the relation of an interesting case, told by the patient, who was a medical man. The two last chapters are completed by accounts of alterations in the form of the cornea, and of the effusion of blood between its lamellæ, and into the anterior chamber.

We have derived much pleasure from the perusal of this work, as it evinces no mean talent for description, and is composed in a natural and easy style. There are some trivial inaccuracies of language, which we can most readily pardon. The reader, we apprehend, will find no great addition of novel matter, as the work is purely descriptive; and histories, when faithfully given, can differ but little from each other. We have declined discussing the merits of the plan: and as the treatment of these diseases forms no part of the present book, we have had but few observations to make. The plates form in our opinion by no means the least valuable part of the work: these 'cunning patterns of nature,' are executed with a happy fidelity and spirit, and express perhaps all that we can hope the pencil to reach.

ART. VI. *Remarks on the Purulent Ophthalmy, which has lately been epidemical in this Country.* By James Ware, Surgeon, F.R.S. 8vo. pp. 57. Mawman.

ART. VII. *Identities Ascertained; or, an Illustration of Mr. Ware's Opinion respecting the sameness of Infection in Venereal Gonorrhœa and the Ophthalmy of Egypt: with an Examination of the Affinity between ancient Leprosy and Lues.* 8vo. pp. 68. Callow.

ART. VIII. *Observations on the Egyptian Ophthalmia, and the Ophthalmia Purulenta, as it has appeared in England.* By William Thomas, Member of the Royal College of Surgeons, and Assistant Surgeon in the Eleventh Royal Veteran Battalion. 8vo. pp. 59. Robinson.

THE first of the three pamphlets, which we propose to consider, is from the pen of Mr. Ware, a gentleman to whom we are indebted for a very accurate description of ocular diseases, and their respective

modes of treatment. He enters upon his subject by recommending the term *Purulent Ophthalmia* to be employed in preference to that of *Egyptian Ophthalmia*. This denomination is not only proper, on account of its designating the more prominent and characteristic features of the disease, but likewise, because the ophthalmia does not by any means appear to be endemic, or confined to the Egyptian soil:—as we, however, conceive this term to be much too general in its application, we could wish some epithet were added to mark more distinctly its specific nature. Mr. Ware then hints at the resemblance which the disorder bears to one which he has, in a former work, described under the title of 'the Purulent Eye of Newborn Children;' and, in an adjoining note, he points out, with the accuracy that marks the man of just discrimination, the difference between the purulent ophthalmia, and that which is frequently found to occur epidemically, though unconnected with any purulent discharge.

In the description of the disease which follows, we admire the accurate simplicity with which the various symptoms are detailed: but the main object of our author appears to be the establishment of an opinion, that a connexion exists between the purulent ophthalmia, of late so destructive in our armies, and that which has been found to arise from the application of the matter of gonorrhœa to the surfaces of the eye.—This opinion he attempts to maintain, by arguments drawn from the existing analogy between the two diseases. Both occur in parts of somewhat similar structure; and both are communicated by the application of a peculiar poison, inflaming and exciting a purulent discharge; they seldom produce any general affection of the constitution (excepting in some cases, in which it may arise from excess of irritation); and they are as seldom attended with any ulceration of the part affected, at least in the first instance. That these analogous circumstances do exist, in both diseases, we readily admit; and, upon a superficial view, there may appear to be sufficient grounds for conjecturing that the diseases are the same: but, from a similar mode of reasoning, the mild epidemic purulent ophthalmia, that has been long known to occur at certain periods in this country, the purulent ophthalmia that may arise from an acrimonious fluor albus, or from the application of various other discharges, arising from different diseased actions, may be said to originate from venereal gonorrhœa.

Mr. John Hunter describes a diseased action in the urethra, which is now well known to be a frequent occurrence, and which he terms the gonorrhœa simplex, in opposition to the venereal affection, which he denominates the gonorrhœa virulenta. This complaint is met with, not only in adults, but in children of both sexes, and of all ages. It is also frequently productive of a purulent inflammation of the eye, and, if neglected, will sometimes be found violent in its effects. There is also another analogous disease, which occasionally

takes place, both in adult males, and boys, consisting of a purulent discharge from the secreting surfaces, between the prepuce and glans penis: in this also the discharge is not unfrequently of a highly acrimonious nature, and, when applied to the eye, has likewise been found to produce a purulent ophthalmia: yet these diseases have never been supposed to have any connexion whatsoever with venereal gonorrhœa; they have indeed constantly been pointed out as complaints usually of trifling import, and of a mild nature; but which, by being mistaken for an incipient venereal gonorrhœa, might excite much apprehension and inischief in those afflicted with the disorder.

The fact is, that something more than the mere analogous circumstances pointed out by Mr. Ware, is requisite to prove, that any connexion exists between gonorrhœa and the ophthalmia of our armies. Let us examine the history of this latter complaint.

The first circumstances that excited attention and alarm, were the horrible virulence of the disease, the dreadful height to which those symptoms usual in purulent ophthalmia arose, their inveteracy, and the insufficiency of all formerly successful remedies to check its progress: nor did the discovery of its highly infectious nature, and the rapidity with which it affected all within the verge of its baneful influence, tend to lessen the general consternation. It came like a blast upon the unfortunate sufferers, and by those even of the most common capacity was not unfrequently denominated a blight. The maddening sufferings of the afflicted, the peculiarity of the pain, its periodical increase, intermission, or at least remission, its long protracted continuance, the tendency to recur with increased violence, and, finally, its frightfully disfiguring termination, are all circumstances peculiarly marking a distinct disease.

We will now inquire, whether, in the purulent ophthalmia that has usually arisen from the matter of gonorrhœa, these circumstances have been observed in an equal degree? Has the latter disease, when taken in its early stages, generally been found to resist the remedies usually applied? Are the sufferings of the patient, even in instances in which, from neglect, the complaint has arisen to an alarming height, to be compared to those constantly occurring in the cruel malady to which we have alluded?—It may sometimes have occasioned blindness, or other misfortunes, though rarely in proportion to the frequency of the complaint.—We may also inquire, whether this gonorrheal ophthalmia has been observed to possess that actively contagious principle, which, in the other species, is the source of so much alarm. Surely examples are not wanting of its existence in private families, and even in the army, where the intercourse is so promiscuous, without furnishing the slightest apprehension of the infection spreading.—It is probable, indeed, that the matter of such ophthalmia, carefully applied, would produce a similar diseased action in the eye of another person: but this is widely different from

that powerfully contagious principle, which so rapidly extends itself without any such assistance. With respect to the painful symptoms that occur in the virulent species, Mr. Ware has the following observation: 'Though I have seen the ophthalmy attended with all the other symptoms that have been so accurately described, I have seldom known it to be accompanied with the excruciating pain others have mentioned.' We feel some reluctance to comment upon this passage; for we cannot remove from our minds a suspicion, which, in conjunction with some other passages indicative of a milder disease, inclines us to doubt whether Mr. Ware have ever seen the disease of which he treats; and whether he be not himself so far deceived, as to imagine he has been describing the virulent and contagious purulent ophthalmia, to which our armies have lately been exposed, while he has only seen that milder species of purulent ophthalmia, which has been long admitted to be the consequence of an application of gonorrheal matter to the surfaces of the eye; together with some instances of analogous ophthalmia, arising from the similar application of other acrimonious discharges.

In our view of the nature of this disease, therefore, we differ materially from Mr. Ware. We cannot but consider the purulent infection, which has attacked the eyes of our soldiers, both in Egypt, and upon their return, as a contagion *sui generis;* a specific poison, conveyed by different modes to the tunica conjunctiva; and, from all that we have hitherto learned, as totally unconnected with that of gonorrhœa, or any other known contagion.

The method of cure recommended by Mr. Ware is generally good; and, we have no doubt, would be found advantageous and successful in that species of ophthalmia with which he seems principally acquainted: though we cannot help thinking, that, upon the whole, the means proposed are inefficient, and much too feeble for the complaint, when occurring in the virulent form which we have pointed out, as a distinct specific disease.

In the observations upon the disease among children, the following passage occurs, strongly marking the utility of complete ablution of the diseased surfaces.

> 'On account of the great rapidity with which, in most cases, the matter is secreted, I beg leave to urge the necessity of injecting this lotion [a weak preparation of Bate's camphorated solution] 'once at least every hour; and I dwell particularly upon the mode of injecting it, by means of a syringe, because the medicated liquor cannot, in any other way, be sent between the swelled conjunctiva, that lines the eye-lids, and that part of it which covers the globe of the eye, with sufficient force to remove the collected matter.'

In the next passage, there is an obscurity which we could have wished were more fully explained. 'Small doses of calomel are to be given once or twice in the day, if, as sometimes happens, there be any *suspicious* eruptions of the skin.' Mr. Ware should have

made us more fully acquainted with the nature of those *suspicious* eruptions, which induce him to recommend small doses of calomel.

When speaking of the system of depletion, adopted by army surgeons, as the only means of effectually checking the disease, in its most virulent form, Mr. Ware gives his opinion with much timidity. 'I have rarely,' he says, 'carried the system of depletion to the *extent* that it has been pursued by them; but when it has been employed in a more *moderate way*,' I have seen it afford most essential relief.' This, however, but ill accords with the principle enforced in the following passage, which occurs about two pages before.—'When so large a quantity is drawn off' (speaking of 30, 40, or even 60 ounces of blood), 'it should be recollected, that the object, in doing it, is not merely to diminish the action of the inflamed vessels, or, as it has been called, the disposition to the disease, *but the power of the constitution to carry it on.*'—We may, perhaps, reconcile the contradiction that appears upon the face of these two passages, by reflecting, that, in the one, Mr. Ware is giving his own practice, confined, as it appears to have been, to the more simple form of the disease; and, in the other, is enforcing a principle, which he adopts from the very same practice of others, in the more virulent species, which he hesitates to pronounce necessary.

It appears very doubtful whether, in the virulent purulent ophthalmia, leeches, bleeding from the angular vein, or scarifications, afford any certain benefit. In the milder cases, however, advantage certainly may be derived from them, and they may occasionally assist in the more virulent, when judiciously employed.—The following passage, respecting the manner of performing the operation of scarifying, is so truly excellent, that we feel disposed to give the whole of it.

'The lancet which is used should be in the best order, and should be carried along the inside of the lower lid, parallel to its edge, and not far distant from it. The advantage of scarifying the lid near its edge, in preference to performing the operation either on the ball of the eye, or farther back upon the lid, is derived from the superior tension which the tunica conjunctiva has in this part, in consequence of the cartilage that lies behind it; and if the operation be performed here, and, as is above recommended, with a sharp lancet, thirty or forty drops, and sometimes a larger quantity of blood may be taken away, with almost immediate advantage. I beg leave, however, to offer a caution against a mode of scarifying, which has sometimes been adopted in these cases, by pricking the eye-lid, ten, twenty, or thirty times in quick succession; a mode which, besides the pain which it occasions, is liable to increase the irritation, and, to say the least, is certainly unnecessary. The lancet need never be applied more than twice, and rarely more than once; and perhaps it will give less pain, if the incision be made by drawing the edge of the instrument along the inflamed membrane, from the point towards the handle, instead of using the direct point for this purpose.—The issue of the blood from the orifices, may be assisted by gently everting the lid with the end of the finger; and it is more

useful to take off the finger occasionally, and then to apply it again, and thus renew the eversion, than to continue the finger steadily on the lid.'

With regard to external applications, Mr. Ware gives a quotation from Dr. Vetch's treatise, as containing the whole which that gentleman has said upon the subject. In justice to Dr. Vetch, for whose accurate description of the disease, and of the only successful means of checking its rapid progress, the profession is much indebted, we must beg leave to refer Mr. Ware to above ten pages of the work, which he appears to have entirely overlooked (from page 83 to 93). These he will find almost solely occupied with a description of the effects of various external applications. Dr. Vetch, indeed, expressly states, that 'no plan of treatment by external applications seemed to be productive of decided advantage;' though he readily admits that it may assist, in conjunction with the system of depletion, which he recommends.

The last thing in this pamphlet, which we shall notice, is the operation of puncturing the cornea recommended for the purpose of discharging the aqueous humour, and thus relieving the violent degree of tension, which generally forms one of the most distressing symptoms of the complaint. This was first proposed by Mr. James Wardrop; and Dr. Vetch, in his treatise, notices it as having been performed in one case, though without affording the expected relief. In the two cases given by Mr. Ware, however, it certainly appears to have been of service, and, upon farther trial, may perhaps be found of more general use.

'The only direction,' says Mr. Ware, 'necessary to be observed in performing the operation, is to introduce the point of the instrument about the tenth part of an inch anterior to the connexion of the cornea with the sclerotica, and to push it gently forward, parallel to the plane of the iris, until the aqueous humour make its escape.—If the grooved couching needle be employed, its evacuation necessarily takes place, as soon as the groove penetrates into the anterior chamber; but if a cataract knife or a lancet be used, and these possess the shape of a wedge, (which, in the former instrument, is peculiarly desirable,) it may be necessary to turn the blade a little on its axis, after it has been introduced, in order to give the aqueous humour an opportunity of escaping; and when this has been accomplished, the instrument should immediately be withdrawn, to avoid wounding the iris.'

Upon the whole, Mr. Ware's pamphlet contains some excellent practical remarks. We must, however, confess, that he has thrown no new light upon a disease, which has been the cause of so much terror; and that, in the perusal of his work, we cannot wholly divest ourselves of the idea, that our author has never himself met with the disease in question, or has not examined it sufficiently to enable him to form any accurate opinion of its nature.

Having already stated our opinion respecting the inadmissibility of the principle of a connexion existing between the contagion of gonorrhœa and the purulent ophthalmia of our armies, the view that we shall give of the pamphlet, entitled '*Identities ascertained*,'

and purporting to be an illustration of Mr. Ware's opinion, respecting the sameness of the two infections, will be brought into a small compass, and will be principally directed to those points, which, we humbly conceive, our author (who prudently appears in an anonymous shape) has not so fully identified, as he seems anxious to persuade himself. With Mr. Ware, he wishes to identify the two diseases; but, in order to get over some distressing facts, which occur in the course of their respective histories, he, by a most ingenious inversion, makes it appear that the supposed cause is the mere effect, and the supposed effect the primary cause.—Our author strongly affirms, that 'the Egyptian disease could not have been considered as one with which we were unacquainted,' if it originated as Mr. Ware supposes; because it must have occurred again and again, in every country in which gonorrhœa had prevailed. Here our author evidently starts a difficulty, which must be overcome before the two diseases can be identified; and, in the attempt before us, some ingenuity is displayed at the expense of no small proportion of probability and experience.

The original seat of the *identified diseases* is discovered to have been in the tunica conjunctiva, in which they have been imprisoned and cooped up for some thousands of years. This was effected by the operation of a principle, said to have been discovered by Mr. Jesse Foot; 'that the poisons of specific contagions are not capable of producing any effect on any other part of the body of that individual from whom they are derived.' Unfortunately it appears, that, through the medium of a second person, (a medium which it is somewhat extraordinary did not occur till so late a period,) the disease extended its influence, and fixed itself in the parts of generation; whence it has never since been effectually expelled. While, however, it has assumed a distinct name, when naturalized in these parts, a degree of intercourse appears to have been kept up with its original residence; and thus gonorrhœa and the purulent ophthalmia have been found to exist together, though upon a totally distinct footing. This intercourse, nevertheless, upon the old principle, must still be kept up through the interposition of a third person. Nothing, surely, can be more interesting than the history of the circumstances giving rise to this simple hypothesis.—Our author says, 'the admitted positions and probable conjectures sustain a chain of argument, that supports opinions not easily comprehended, without a combination of principles, which had separately been supported by others. If we can comprehend the meaning of this passage, (which occurs in the preface), it is, that by the combination of certain principles, which had previously been relinquished, as mere conjectural hypotheses, our author has attempted to build a new hypothesis, which, he conceives, is to withstand that reference to facts, by which the former severally fell to the ground: indeed we fear that such materials are much too rotten, to support the structure that he would raise.

Gonorrhœa most undoubtedly has been communicated from the urethra to the membranes of the eyes, and other secreting surfaces of the same person: so have other specific local diseases; and when a purulent disorder has been thus produced in the eyes, it has always proved totally distinct from the purulent ophthalmia of Egypt. We must ask our author, how he would account for a contagion spreading from the hands of a person, who had unfortunately forgotten the precaution of '*touch me not* B'OT A GLAUR,' when under certain circumstances, over every part of the body of the same individual; and how he would account for that singular disposition, which various species of warts possess, of increasing and multiplying in different parts of the same body? A variety of facts, in short, seem to militate against the principle which our author is anxious to revive; and, unless this principle be admitted, his whole fabric must fall. We shall not, therefore, dwell upon the many fanciful arguments advanced, but content ourselves with remarking, that, however we may be disposed to admire his fancy, we cannot so readily acknowledge his judgment.

In a subsequent part of his pamphlet, the author attempts to identify leprosy with the venereal disease, and to prove the slight connexion that apparently exists between gonorrhœa and syphilis. All these points in dispute are not very likely to be determined by the author's luminous and inventive genius; but, for our own part, were we inclined to allow his first principle, we should still not feel ourselves satisfied, that ophthalmia and gonorrhœa are one and the same, till the fact of the matter of ophthalmia having actually occasioned gonorrhœa, when applied to the urethra, be fully ascertained. It has been said, that an eminent surgeon, from the most laudable motives, actually inoculated himself with venereal matter, to determine certain doctrines connected with the system which he maintained, and which could not have been otherwise so well decided; and that some physicians have subsequently made similar experiments upon themselves, to determine the precise nature of the plague. What a field is opened to our author for a glorious elucidation of the truth of his identities! We would recommend the idea to his most serious attention.

We cannot better conclude our observations, than by extracting the following curious specimen of medical literature, though we are far from recommending the *philosophic indelicacy* of our author, either with respect to his style, or conduct to his supposed patient.

'The admission' (of an idea which, it is stated, Mr. Ware maintains, but of which that gentleman probably was not conscious, when writing the passage referred to,) 'may be intended as a salvo to the *unphilosophic delicacy* of silly fashionables, who might not relish the imputation of having a *clap in the eye*;—an imputation that might be still less acceptable, from being connected with a suspicion of something amiss in the *lower regions*.'

'There would, indeed, to weak minds be something awkward in asking

advice under such circumstances.—The patient, with trembling apprehension, might say, "I hope, Mr. oculist, my complaint is not an ophthalmy?" The oculist, with becoming candour, would reply:—'Indeed, madam, it is of that kind.'—"Dear sir, you alarm me much!"—'I cannot help it, madam; humanity to your ladyship requires me to speak out; your disorder is a true ophthalmy, which must have had its source in *another* quarter;—take the advice of a surgeon.'—"I have no other complaint."—'You must be mistaken, madam; disorders may be latent, and scarcely perceptible; but there is no effect without a cause;—take the advice of a surgeon.'

The last of the three pamphlets upon ophthalmia, which we have to examine, is written by Mr. Thomas, assistant surgeon to the eleventh garrison battalion.—It has merit, both with respect to the detail of symptoms, and the mode of treatment recommended. Mr. Thomas is inclined to divide the contagious ophthalmia into two species; 'the *ophthalmia vera*,' which he considers endemial to Egypt, and the '*ophthalmia purulenta*,' which he supposes to be the same disease that has proved so destructive in our armies.—We conceive, however, that a variety of ophthalmia, even of a purulent nature, may be found to exist, arising from causes totally distinct: till these various causes be more fully ascertained, it is impossible to fix upon names sufficiently accurate to designate the peculiar species, to which the ophthalmia may belong; and much confusion has hitherto arisen from the impropriety of the terms employed. The epithet *purulent* may as well be applied to the Egyptian, or any other ophthalmia, in which a purulent discharge forms a leading symptom, as to the particular species described by Mr. Thomas; and, by this apparently trifling error in nomenclature, he has been evidently led into a most gross mistake. He conceives that he has seen, and successfully treated, by the most simple means, a disease which bade defiance not only to the practice recommended, but to every professional exertion, till the powerful plan adopted by some army surgeons was finally attended with unlimited success.

Mr. Thomas has given a most accurate account of the disease,—as it occurred under his observation; his description of its minutiæ displays considerable discrimination, and his treatment evinces great readiness in the application of the mode of cure: yet the moment he quits his patient, and retires to his closet, he loses sight of that fact, which his very description and successful mode of treatment should naturally have led him to discover;—namely, that the disease with which he has been acquainted, cannot be the same with that, which, wherever it has occurred, has been so universally destructive. In short, Mr. Thomas's purulent ophthalmia is nothing more than that epidemic ophthalmia, which, at repeated intervals, and long before the Egyptian expedition, occurred in this country; and which is perfectly distinct from that dreadfully contagious disorder, which has subsequently made its appearance. The alarm occasioned by this terrible malady, must long continue to exist; while the cry of *the ophthalmia* remains almost as terrifying as the annual an-

nunciation of *mad dogs*, every little disorder of the eyes will be attributed to it.

The following is the description of the disease, as first observed by Mr. Thomas:

'The appearance of the eyes struck me as being peculiar; the sensation was as if dirt or gravel had been forcibly blown into his (the soldier's) eyes. There was a puffiness of the eye-lids, with a bluish discoloration of them.—When the lid was drawn down, the tunica *conjunctiva* was red, thickened, and had the appearance of jelly:—a copious secretion of water was continually running down his cheeks, which distressed him much; and at the bottom of the lower eye-lid was a small fibrous substance, which was easily wiped off, the doing which did not give him much pain.—He had no headache; his pulse indicated no indisposition; and, excepting this affection of the eyes, he was apparently in good health.'

The mode of treatment immediately adopted follows:

'Having carefully wiped and washed his *eyes* from any impurity around *it*, he was stripped, and ordered to wash his hands and face perfectly clean; which done, cold water from a pump was for some minutes thrown on his eyes and face.—He then went to bed, and cold water was placed by him, to wash his eyes as often as they became troublesome. The next day—as he certainly was not worse—having carefully drawn down the lower eye-lid, the internal part of the eye was thoroughly cleansed all round from the matter, which at the bottom of the eye was detained in some quantity.—He was again taken to the pump, and the water diffused from it over his eyes, as before, after which, with the end of a feather, a small portion of the following ointment (℞. Ungt. Sperm. Ceti, ℥i; Kali ppt. ℈i. m.) was introduced into the great canthus of the eye; and, by gently drawing the lower eye-lid, was applied fully to the bottom of it.—He was then placed on his back on the bedstead, with his head raised, that the ointment might diffuse itself over the whole eye.—He was directed on no account to touch his eyes for an hour, then to throw cold water with his hand over them, and to repeat that process as often as his eyes became uneasy.'

This treatment is described to have been universally successful; and it is certainly admirably adapted to the symptoms, as they appeared in the first instance.—The advantages to be derived from such repeated ablutions are certain; and, were they used more frequently in a somewhat analogous disease (gonorrhœa), would be productive of greater benefit than might be generally expected. The lotion employed, however, should be mild in its nature, and never more stimulating than is agreeable to the part to which it is applied. We conceive, also, that in the most virulent form of the purulent ophthalmia, much advantage might be derived from such a mode of treatment, if used in conjunction with that active system of depletion, which, in the early stages of the complaint, is alone capable of curbing the rapidity of its progress.—We trust our author will not feel displeased at our pointing out the only essential error which his otherwise excellent practical treatise contains.—We feel ourselves more fully convinced of the propriety of the opinion, which we have stated, from having ascertained that, scarcely a

twelvemonth since, an epidemic disease, similar to that described by Mr. Thomas, actually prevailed along the southern coast, and that not only among the troops, but also among the native inhabitants. This epidemic frequently appeared in a still milder form, than our author has described, though by no means less contagious.—It occasionally, indeed, assumed so mild a form, as to have lasted only a few hours. We have been favoured with a communication from a military surgeon, stationed on the coast of Sussex, describing the disease as having been generally so mild, that it only required an almost constant ablution of the eyes with salt-water. He was accustomed to order his men down to the shore, to make them drink about half a pint of sea-water, and to instruct them to pour it repeatedly upon the eyes of each other: and although he found the disease so infectious in its nature, as to run almost through the whole regiment, within a fortnight, yet there were only three of the men whose symptoms appeared sufficiently severe to detain them from their customary duties; and even these very speedily recovered. Surely such a disease cannot for a moment be confounded with that, which, upon other occasions, destroyed the sight of so many hundreds.

In our view of the three pamphlets before us, we have observed, upon the whole, a want of discrimination respecting those points which essentially characterize the different species of analogous complaints; and although this may be an error likely to arise, in the description of any new circumstances that may occur respecting disease in general, we could wish that medical writers would be more certain of the facts which they assume, before they incautiously obtrude their fanciful speculations upon the public.

ART. IX. *An Attempt at a Systematic Reform of the modern Practice of Adhesion, especially in relation to the Use and Abuse of the Thread Suture; with a View of its Merits, comparatively with those of the Adhesive Strap, in the Surgery of Wounds; being the Substance of a Course of Lectures intended to have been addressed to Students in Surgery.* By Samuel Young, of the London College of Surgeons. 4to. pp. 158. Mathews & Leigh.

THE question relative to the employment of sutures, in ordinary cases of wounds, appears to us to lie in a very small compass. If the wound is superficial, the sutures are unnecessary, because the adhesive plaster is always sufficient to retain the divided edges in contact. It answers this intention much more effectually, and at the same time occasions none of that irritation and inflammation, which must always attend the use of sutures, in a greater or less degree.

If, on the other hand, the wound is deep, and has extended to the muscles below the skin, and sutures are introduced, they will not retain the sides of the wound in complete contact; because, by irritating the muscular fibres, they excite them to contraction, by which the sutures are torn out, and become loose; so that they answer no good purpose whatever; at the same time that they act as setons, bringing on pain and inflammation, in proportion to their extent. In such wounds, therefore, as well as in those which are superficial, the straps of adhesive plaster, if skilfully applied, will answer the purpose of keeping the sides in contact, at least as well as sutures; while they are free from the disadvantages of the latter.

We have been accustomed to consider it as one of the greatest improvements of modern surgery, that in the generality of wounds the use of sutures has been suspended; and, with the author of the publication before us, we were not a little surprised, when in Mr. John Bell's System of Surgery we read the following remarkable passage: 'Except in those cuts, which are so slight as only to require a cloth to be wrapt about the part, every wound ought to be sewed.'

Though we were surprised to find a rule, like this, laid down in so unqualified a manner, in a system of modern surgery, the circumstance did not inspire us with any great degree of alarm, as to the influence which it might have on the conduct of surgeons in general. For Mr. Bell's excellencies appear to us to be limited to energy of style, and to matters of speculation, and criticisms on the opinions of others. His works contain so little of that valuable information, which is the result of practical observation and experience, that they are not likely to have much influence on the conduct of other surgeons, nor to be regarded as forming a standard of practical surgery. We have been induced to make these remarks, because Mr. Young has adopted a different opinion. 'Here then,' he observes, 'all the corruption and mischief of the old rules for sewing wounds, are not only revived, but absolutely extended: here, then, what I thought was going on in practice, as it were by stealth, is now publicly announced; not coming merely as an opinion proposed,—not as an accommodating modification of practice,—but imperiously standing as an inviolable rule, from one of the leading masters of modern surgery. If its radical defects be not as publickly exposed, this extraordinary axiom could not fail of receiving a current stamp: the imperfections of eminent teachers are obscure and mixed; and are more frequently copied for virtues, than marked out as warnings.' p. 13.

'It is the knowledge of this gentleman's abilities, by which I measure the evil tendency of this part of his doctrines: and, under these impressions, feel it my duty thus publicly to notice them.' p. 15. Under these impressions, then, Mr. Young has boldly stepped forward, in the true spirit of chivalry, to combat one, whom he seems

to regard as little else than a giant in surgery. Such a giant, it seems, could not be assailed with common weapons, or subdued in a combat of ordinary length; and accordingly we find the work before us (which can be considered as little more than a commentary on the two lines, which we have quoted from Mr. J. Bell,) consisting of one hundred and fifty eight quarto pages.

The subject is treated of in five sections. In the first section, under the head 'Preliminary Remarks,' the author takes a general view of the importance of the practice of procuring the adhesion of wounds, and of the gradual introduction of this practice into surgery. He states (which we have already mentioned) his reasons for 'giving the present *lectures:*' for Mr. Young, it seems, could not condescend to publish a simple treatise on the practice of adhesion, but he must put it into the form of lectures; and accordingly we find the word *gentlemen* occurring in the first sentence, and repeated at due intervals; and the word *you* in almost every page. As to the actual merits of the work itself, it can make very little difference whether it appear under the title of *lectures*, or *treatise*, or *essay*, or any thing else: but we submit to our readers, whether Mr. Young's mode of addressing the public does not savour of an affectation, that is somewhat ridiculous.

The second section treats of inflammation, adhesion, and the laws of irritability. We are told that 'every indirect increased action of the vessels of a part, must be considered as the commencement of erysipelas, or as incipient gangrene: for in this kind of inflammation there must be a morbid state of irritability of the principle of life. Here must either be something directly wrong in the functions, supplying the part with this principle, where erysipelas exists, or the source must have been deranged by some secret influence of exhaustion, which renders the life of a part below par, or, in other words, below the natural standard of health, &c.' p. 41. Of this theory of erysipelas, the author appears to be extremely proud. To our dull understandings, we must own, it is not sufficiently intelligible, to induce us to attempt to give any opinion upon its merits.

In speaking of adhesion, Mr. John Bell rejects the term adhesive inflammation. 'It is,' he says, 'no better than to call a cure a disease.' This is evidently a mere dispute about terms; but even terms are of some importance, and we do most assuredly agree with Mr. Young, who insists on the propriety of the name in question. To throw out coagulable lymph, is but a minor degree of that action which afterwards produces a secretion of pus: and if in the latter case it is called inflammation, it ought to be called inflammation in the former also. The epithets of *adhesive* and *suppurative* distinguish these two stages of inflammation from each other. To say that one is inflammation, and the other is not, is to make a distinction without a sufficient difference, and must evidently give a very wrong

impression to the mind of the student in regard to the nature of those actions. It moreover, as our author observes, leads to an erroneous rule of practice. 'A certain degree of inflammation is as necessary to the well-being of adhesion, as an overcharge of it is destructive.' p. 53. And whoever attempts to avoid inflammation altogether after a wound, obstructs instead of promoting the adhesive process.

The third section is very properly entitled '*General* Remarks on the Modern Practice of Adhesion.' The remarks indeed are general, and desultory enough.

The author complains that 'the sewing up of flesh wounds should be thus familiar to society.' He speaks as if (himself excepted) every surgeon was in the habit of sewing up every wound that he met with. This complaint is certainly not made on any just grounds. Mr. John Bell may stitch wounds, for aught that we know, and there may be some few other surgeons, who occasionally use sutures where they are unnecessary; but, with respect to the generality of modern surgeons, we believe we are justified in asserting, that they are very little in the habit of employing sutures; and we have already stated, that we consider it as one of the greatest improvements in modern surgery, that the use of sutures has been in a great measure superseded.

In the fourth section the author proceeds, as he tells us, 'with honest exultation,' to comment (once more) on Mr. John Bell's and on Mr. Benjamin Bell's doctrine respecting sutures. These criticisms occupy forty-five pages; but we certainly shall not trouble our readers with any hypercriticisms on them.

The fifth section is intended to prove 'the competency of the adhesive strap, as a suture, in wounds,' and to shew how it should be applied, and how aided by means of bandages and the position of the body or limb, in wounds of different parts. The author relates some cases to illustrate his doctrines, in which (we suppose through an over anxiety to be accurate) he mentions a number of trifling circumstances, which it would have been better to omit. We thought that Mr. Young had completely overpowered his antagonist, in the last section: but either he did not give him the finishing blow, or he forgot to have his ghost properly laid in the red sea; for here is Mr. Bell again, with all his horrible tenets, haunting him as before, and Mr. Young is cutting and thrusting at him as briskly as ever.

We have given only a brief abstract of the contents of this work, because we find in it but few theoretical remarks that can be considered as original; and nothing in the practice recommended, in which the generality of modern surgeons will not agree with the author. We give him no credit as an improver of surgery, but we certainly concur with him in all the main points of his doctrines; and we are of opinion, that if they had been compressed by some abler hand into a small space, and published in some collection of

medical tracts, such an essay would have been useful to the younger members of the profession. Indeed, as to these lectures of Mr. Young, we are much mistaken if any one will be found (save a few unfortunate reviewers like ourselves), who will take the pains to read them from beginning to end. The style is tediously diffuse. The meaning of the author is enveloped in such a mist of words, that it often requires more than ordinary powers of vision to descry it. He is a worthy rival of Mr. Russell, having a singular faculty of stringing sentences together; of writing a great deal, and saying very little. This, however, is not the only complaint which we have to make on this head. Though the work is written avowedly in opposition to the doctrines of Mr. John Bell, it contains a palpable imitation of the style of that gentleman: and, like other imitations, it falls very short of the original, possessing most of its faults and very few of its merits.

Mr. Young is, indeed, in many respects, ridiculously affected in his mode of writing. Sometimes he attempts to rise into the sublime:—'and such is the nature of this process, and such its towering superiority over art, that while the older surgeons were floundering in the filth and dross of their learned ignorance,' &c. &c. p. 1.

Then he sinks into the pathetic. 'I declare to God, that in doing what I have done, in my earnestness to reduce the practice of adhesion to sound principles, and in my ardent, though humble efforts, to detect and expose (simply for general good) Mr. Bell's contradictions on this head, I have sometimes been half-distracted.' p. 105. Poor man!

Sometimes he admonishes his pupils in a threatening tone:—'By the laws of his country, were one charged with such a murder, he might no doubt be liberated: but, I assure you, were he tried by the laws of nature, he would not escape so easily.' p. 7.

At other times, however, he can be jocose, and hesitates not to attempt a pun:—'even the dramatic wit of Mr. John Bell for a while got the better of his excellent understanding, and he among the rest could not refrain from pecking at Mr. Hunter's cock's-comb.' p. 5. And again, in speaking of *thread* sutures, 'thus you see, (without the most distant thought of using a pun on so serious a reflection,) all the boasted advantages of adhesion; the whole fate of that process, which ranks among our first discoveries, hangs upon a *thread!*' p. 64, 65.

All this is very bad. A medical book, which professes to treat only of matters of fact and reasoning, ought to be written in a plain and concise style, because that is most easily comprehended, and least liable to be mistaken. To introduce into a treatise on inflammation and adhesion, a redundance of epithets and metaphors; to attempt to be sentimental and witty; appears to us almost as ridiculous, as it would be, to write a monody on sore legs, or a Pindaric ode on the piles.

We here bring this article to a conclusion, and Mr. Young himself will furnish us with a sentence very properly adapted for that purpose. We must 'beg leave to state, and entreat it may be clearly understood, that the free criticisms, which we have made, have been dictated solely and wholly by necessity, and not with the most distant view of personal opposition, or from any individual disrespect.' p. 15.

ART. X. *The Chirurgical Candidate; or, Reflections on Education: indispensable to complete Naval, Military, and other Surgeons, &c.* By Charles Dunne, Member of the Royal College of Surgeons in London, Surgeon in Chief of the Medical Staff on the Gold Coast of Africa, formerly Surgeon to the Auxiliary Cavalry serving in Portugal, &c. Dedicated, by Permission, to His Royal Highness the Prince of Wales. 8vo. pp. 196. Highley.

THIS is a most extraordinary publication. It embraces about a thousand and one different subjects in the space of an hundred and ninety-six octavo pages. Mr. Dunne is not contented with the bill of fare, expressed in the title page, but has laid before his guests an entertainment, consisting of the strangest variety of dishes that can be imagined; nine-tenths of them entirely out of season, and all placed on the table in a most singular state of confusion.

The author labours, in the preface, to prove that man without education is no better than a brute; that apothecaries are a very ignorant set of beings; and that the profession of a quack doctor is by no means respectable. The introductory chapter treats of education in general, and the education of surgeons in particular. The author very sagely thinks, that no *loblolly boy* from the cock-pit of a man of war should be promoted to the rank of assistant surgeon; and that a person who purchases a diploma from the university of Aberdeen, instead of putting M. D. after his name, for Medicinæ Doctor, should reverse the letters, and write D. M., for *dangerous man*.

In the first book, the author insists on the necessity of annihilating quacks, and on medical men being more completely educated; and he explains at large his own plan for attaining both these desirable ends. Both physicians and surgeons should be first educated at some university, and should afterwards devote several years to the study of their professions. We shall not dispute the excellence of this plan; but we know, that, with regard to medical and surgical students in general, it is impossible to put it into execution. A military surgeon, however, besides a thorough knowledge of his profession, must be gifted with divers other qualifications. He

should be of a 'good stature;' should have no 'hunch on his back,' nor 'a large pair of spectacles on his nose;' he should not stammer; and he should be of an amiable and obliging temper. Further, he must have a competent knowledge of philosophy, mathematics, fencing, astronomy, natural history, logic, music, divinity, and law: he must understand the Latin, Greek, French, and German languages, and it would be much better if he had the degree of bachelor of arts. Having qualified himself in all these respects, the young surgeon may deem himself worthy to become a candidate for the rank of hospital mate; and he may employ his interest with Mr. Knight, to be sent in that capacity to the West Indies, the only field in which Mr. Dunne seems to think the above qualifications could be employed to advantage.

The author devotes the second and third books to observations on naval and military hospitals; and in the fourth and fifth, he describes the voyage to the West Indies; and concludes with a 'plan for ascertaining and investigating diseases,' borrowed from the ideas of 'the ingenious Doctor George Pearson,' and maintaining 'a superiority over any thing of the kind ever laid before the public.' 'The immortal Maupertuis,' says Mr. Dunne, 'proves beyond every doubt, *that questions properly put to a patient will produce answers, that will frequently throw a light on the true nature of the disease;* and, by a little serious reflection, the real cause, and the state of the constitution, may be developed; which otherwise might remain dormant,' &c. Surely it required no spirit from the dead, nor even 'the ingenious Doctor George Pearson,' to unfold this mighty plan of discovering diseases, by asking questions, and procuring satisfactory answers.

The sixth book is entitled 'Hygiene, or reflections on the non-naturals.' We here meet with several novel and interesting pieces of information; such as, that the earth is surrounded by a thin fluid mass of matter, called the air, or atmosphere; that the earth's surface contains, in round numbers, 200,000,000 square miles, &c. &c. After mentioning Hippocrates, the author breaks into the following pathetic apostrophe: 'O father of physic! there were no aldermen of Candlewick, Dowgate, or Aldgate, in thy days! no lord mayors' feasts! no turtle dinners at the London tavern! and no deputy B—r—h, alias Colonel Pattypan, to fill up the interstices with puffed pastry!'

The seventh book professes to contain a certain method of preventing the yellow fever, cholera, dysentery, tetanus, &c.

The five last books consist of philosophical observations on climates. The people of cold climates are described as more brave, and less sensible of pain, than those of warm climates: 'you must flay a Muscovite alive to make him feel.' The seasons under the equator return twice in the year: elsewhere there is only one winter. The Italians, as well as the Egyptians, are grievously tormented with

ophthalmia. We are informed in a note, that Herodotus was the father of history; and these '*philosophical* observations' conclude with an account of the medicinal springs in different parts of the world.

After this abstract, we hope our readers will excuse us the irksome task of making any further comments on the publication before us: we trust, also, that the author will excuse us, if we advise him not to be over-anxious to publish the five additional volumes, on the different branches of philosophy and medicine, with which he has threatened us.

ART. XI. *Cases and Observations on Lithotomy: including Hints for the more ready and safe Performance of the Operation. To which are added, Observations on the Chimney-Sweeper's Cancer, and other Miscellaneous Remarks.* By W. Simmons, Surgeon. 8vo. pp. 40. Vernor & Hood. Printed at Manchester.

WE have heard it objected to this publication, that it contains hints, but does not establish facts. We cannot say that this objection has much weight with us. It too frequently happens, that a person, who has obtained a little scanty information, which he conceives may tend to elucidate some point in pathology, or to improve some branch of medical or chirurgical practice, endeavours to mould his crude notions into the form of a complete treatise, instead of publishing them as mere hints, for the direction of future inquirers. Mr. Simmons has justly, we think, preferred the latter mode.

His pamphlet contains four cases of lithotomy; and the object of the three first of them appears to be to shew, that the smoky and impure atmosphere of a large manufacturing town may have considerable effect, in aggravating and protracting the bad symptoms, which may occur after this operation. This proposition we certainly are not disposed to dispute. We well know that the symptoms, which follow a severe local injury, whether from accidental violence, or from a surgical operation, generally, *cæteris paribus*, reach a more alarming height in the smoky air of a large town, than in the pure air of the country. The author recommends, for the more ready performance of the operation of lithotomy, that the surgeon should make his incision on a line with the inner surface of the symphysis pubis; by doing which, that part of the membranous portion of the urethra, which lies contiguous to the prostate gland, will be penetrated, and the wound may then be enlarged in the customary manner, so as to allow an easy admission of the beak of the gorget into the groove of the staff.

In some observations on chimney-sweeper's cancer, the author

recommends the trial of the solution of arsenicated kali, (Fowler's mineral solution,) taken internally, as an *anodyne*. It had before been observed to possess considerable anodyne properties, in some cases of cancer of the breast. In one case of chimney-sweeper's cancer, the same properties were very remarkable.

The pamphlet concludes with some observations, of no great importance, on ulcers of the alæ nasi, and supposed dislocations.

On the whole, we do not find much to admire, or much to object to, in this little publication. The observations, which it contains, are not of any very high value, but they are evidently the result of experience. If they do not tend to produce any great improvements in surgery, they are not calculated to mislead the young practitioner; and so far the work appears to us to be deserving of approbation.

ART. XII. *Practical Observations on the Nature and Cure of Strictures in the Urethra.* By W. Wadd, Member of the Royal College of Surgeons in London. 8vo. pp. 88. 1809. Callow.

WE have heard it said that there is a reason for every thing under the sun, and conclude, therefore, that Mr. Wadd had some motive for publishing these observations. But we can assure our readers that they do not contain the most remote approximation to any thing like a new fact, nor exhibit the slightest novelty of arrangement or argument. Much less can they be considered as a representation of the actual state of our knowledge on the subject. We therefore forbear to subject this trifle to a regular review; and shall merely add, that its professed object is to recommend the common bougie in preference to any form of caustic application.

ART. XIII. *Principles of Surgery, for the Use of Chirurgical Students.* A new Edition, with Additions. By John Pearson, F. R. S., Surgeon of the Lock Hospital and Asylum, &c. 8vo. pp. 331. Callow.

THE first edition of this useful and scientific work appeared in the year 1788. It was designed, as is stated in the preface, as a text-book for the use of those gentlemen, who attended the author's chirurgical lectures. At that time it was Mr. Pearson's intention to publish a second part, in continuation of the work; but we are sorry to find that 'circumstances have induced him to defer the doing so from time to time, and at last to abandon his intention altogether,'

In this new edition of the principles of surgery, we notice several alterations and additions: of the latter, the most material is a chapter on œdema: some additions of less importance are found in other parts of the book.

In the chapter on cancer, the following observation is added on the morbid anatomy of that disease.

'Pathologists of great eminence have described a scirrhous tumour, as consisting of a hard centre with radiated lines, like ligamentous bands, proceeding in every direction. This appearance is not, I believe, peculiar to scirrhus, since I have seen similar alterations in diseased portions of the breast and testicle, where other appearances of a scrofulous affection existed likewise.' p. 228.

This remark, to a certain degree, corresponds to what we ourselves have observed. The appearance of ligamentous bands is by no means peculiar to scirrhus, for we have noticed the same appearance in many cases, where other circumstances made it evident that the disease was of a scrofulous nature. At the same time, we are not disposed to reject this appearance altogether as a mark of scirrhus. We have never seen a tumour that could be considered as truly scirrhous in which it was wanting: and, where we have seen it connected with a scrofulous disease, the ligamentous bands have not had so regular an arrangement in the form of radii proceeding from a centre, as in the scirrhous breast.

In the chapter on œdema, Mr. P. observes:

'The tumour, which constitutes an essential part of the disease termed œdema, consists of a distension of the solids, from the accumulation of a preternatural quantity of the interstitial fluid in the cells of the reticular membrane: hence, the œdema appears as a diffused tumefaction of the common integuments in some particular part of the body, unattended by inflammation, yielding easily to pressure, and retaining, during some time, the vestige of the impressing body.' p. 295.

Among the supposed causes of œdema, he enumerates a debilitated or inert state of the absorbent vessels; 'but,' he remarks, 'that atony of the absorbent vessels, as a cause of œdema, has never been proved satisfactorily by any experiments yet made public.' p. 297. We agree with the author, that there are some circumstances which would seem to militate against this opinion; but there is one, which Mr. Pearson has not mentioned, which at any rate is very much in favour of it, even if not sufficient completely to establish its correctness. In dropsical persons, the absorbent vessels are usually remarkably large and distinct, as if (like varicose veins) their coats were weaker than natural, and more capable of being dilated. This is a fact well known to anatomists, who invariably prefer a dropsical limb for the injection of the lymphatic vessels.

Mr. Pearson divides Œdema into six species, viz.

'1. Œdema simplex flaccidum.
2. ——— ——— durius.

3. Œdema Symptomaticum, vel Tumor œdematosus.
4. Œdema Deuteropathicum.
5. Œdema cum Erythemate.
6. Œdema Purulentum.'

On each of these kinds of œdema some remarks are made, illustrative of its nature, symptoms, and treatment. We shall quote the description of the Œdema purulentum, because it has been neither accurately nor generally described by pathologists.

'This disease commonly begins with shivering, increased heat, a more frequent pulse than natural, sense of debility, with the other common symptoms of fever. Soon after this attack, the patient complains of pain in his groin; and on examination, some of the absorbent glands, there, are found enlarged and tender; the thigh is preternaturally hot; but neither hard, swollen, nor discoloured. In the course of a few days the knee becomes hot, tumefied, and violently painful on the least motion, while the leg and foot are affected with the œdema simplex flaccidum. In about ten or fourteen days from the commencement of the disease, two or three indurated parts, of small dimensions, may be discovered in the ham and inner part of the thigh, which may be regarded as indications of suppuration having taken place; and at this period, the whole of the lower extremity is commonly highly œdematous. When one of these morbid parts gives way, a very large quantity of pus, of an ash colour, and very much resembling the matter discharged by a psoas abscess, will be evacuated, and the daily discharge will be very considerable; so profuse, indeed, that I have at first suspected the existence of a lumbar abscess; yet, on a more accurate examination, I observed that the matter could be pressed, apparently, from all the interstices of the muscles of the thigh.'

We must again express our regret, that any circumstances should have prevented the author from completing his work. Though not abounding, nor intended to abound, in new and striking facts, we must consider it as a highly valuable addition to surgical literature. It is a scientific arrangement of the leading facts connected with the diseases that lie within the province of the surgeon, and may be considered as an attempt to introduce into surgery that method, of the want of which we have so often cause to complain.

ART. XIV. *The Chirurgical Works of Percival Pott, F. R. S. Surgeon to St. Bartholomew's Hospital.* A new Edition, with his last Corrections: *to which are added, a short Account of the Life of the Author, a Method of Curing the Hydrocele by Injection, and Occasional Notes and Observations.* By Sir James Earle, F. R. S. Surgeon Extraordinary to the King. In 3 vols. 8vo.

THE writings of Mr. Pott are already so well known, and have been so deservedly esteemed by all surgeons, that we consider it unnecessary to enter into any elaborate detail of the contents of the volumes before us, and shall therefore content ourselves with offer-

ing a few remarks, and with pointing out the additions or alterations, which we have observed in the perusal.

In consequence of the rapid sale of a former edition, and the desire of the booksellers, the editor was induced to superintend the present publication, which his intimacy with the author during his life, and near connexion with his family, have enabled him to perform in a very satisfactory manner.

Percival Pott was born in London, in the year 1713. He lost his father while yet in his infancy, and was left in a very dependant situation. He was educated under Mr. Nourse, one of the surgeons of St. Bartholomew's hospital, and lecturer on anatomy. Under his tuition he had many opportunities of acquiring an accurate knowledge of anatomy, and of observing the progress and treatment of surgical diseases. At the age of twenty-two he commenced his profession, and he soon acquired that share of practice to which his abilities and industry entitled him. He was soon afterwards appointed to St. Bartholomew's hospital, where he continued surgeon for forty-two years, and died at the age of seventy-five of a fever, brought on by exposure to cold and overfatigue.

The works of the author prove, that the advantages attending the institution of public hospitals, are not confined merely to the relief of the patients admitted, but that they have contributed very much to the advancement of surgical knowledge, and to give it that degree of perfection which it has attained. Few were better calculated to correct the errors of our forefathers, to reject the hurtful parts of their practice, or to propose more complete and certain means of cure, than Mr. Pott; whose practical genius, with unremitting attention, improved those opportunities, which a large hospital always affords. We proceed to give an account of his writings, as they are arranged in the volumes before us. The first contains the observations on injuries of the head, on fistula lacrymalis, fractures, and dislocations.

Mr. Pott has thrown great light on the subject of injuries of the head, which were formerly considered as the most intricate in surgery. In wounds of the scalp, some authors advised the total removal of the detached portion, to facilitate the examination of the injury done to the parts beneath. This practice was strongly opposed by the author, who adopted the method of saving as much of the separated portion as possible, when there was no affection of the subjacent parts, contra-indicating that plan of treatment. This, as far as we have seen, is now generally adopted; and the editor has subjoined * two cases, which very fully illustrate the advantages of this practice, even when a considerable time has elapsed between the occurrence of the accident and the arrival of the surgeon.

To the chapter on the treatment of compound fractures and

* Vol. i. page 8, note.

dislocations, the editor has subjoined several very pertinent remarks, on the propriety of excluding the external air from the cavity of the wound. With respect to the propriety of amputating or saving the limb, it is difficult to give any general rule, that shall be applicable to every particular case; a great deal, therefore, must be left to the skill and judgment of the surgeon.

In addition to the mode of reducing dislocations, we may remark,* that Flajani, a celebrated Roman surgeon, has succeeded in cases, where the bone had been displaced for a long time, by the following method. Powerful emollients are applied all round the joint and contracted parts, for eight or ten days, till they appear sufficiently relaxed. The patient is then to be seated on a bench, with two assistants to form the extension and counter-extension. A third assistant opens a vein in the other arm, and the patient is bled *ad deliquium:* while in the faint, the surgeon is to replace the bone. Flajani observes, that very little force is required in making the extension, and that he has succeeded after the bone had been displaced 2, 3, 4, and 7 months.

The second volume contains the treatise on Ruptures and on Hydrocele.

Since Mr. Pott's treatise on Hernia was published, this branch of surgery has received many improvements. The description of the crural ring, by M. Gimbernat, of Spain, was perhaps the first step towards the advancement of our knowledge, in the natural anatomy of the parts, concerned in Hernia. When his work was translated into English, it awoke the attention of many surgeons in this country; and several phenomena of the disease were explained, which before could not be accounted for; and it laid the foundation for many judicious practical rules in its treatment.

In pursuing this track, Mr. Astley Cooper has particularly distinguished himself. He has brought before the public a treatise on Hernia, which, from the minuteness and accuracy of anatomical knowledge displayed in it, and the talent for observation evinced throughout the work, may justly be considered as one of the greatest additions that surgery has received for a long series of years.

Mr. Cooper has therefore, in a certain degree, thrown the labours of former surgeons into the back ground; and although Mr. Pott's and Richter's treatises on the same subject will be always a valuable addition to the library of every medical man, yet Mr. Cooper's work must be considered as the standard book on this subject. The editor has not attempted to give any additional account of the great improvements which have been introduced in this branch of surgery.

The author's treatise on Hydrocele attracted very much the attention of surgeons, and produced a discussion, carried on with considerable warmth, with regard to the best mode of curing this disease. Mr. Pott was a keen advocate for the use of the *seton;*

Mr. Benjamin Bell in all cases gave the most decided preference to the *incision;* and Sir James Earle introduced into very general notice the operation by *injection.* Long experience, however, has now established Sir James Earle's mode of operating, in preference to every other, in the generality of cases of Hydrocele. Comparative trial of the different modes of operating were made in many hospitals, and by different individuals in private practice; and the majority of surgeons have become decided patrons of the method of injection. We remember having heard of a very memorable comparative trial of these operations by two surgeons of Edinburgh. In the first case, when the operation was performed by a young unprejudiced surgeon, injection was used, and the patient, a celebrated lawyer, was able to go on without interruption to dictate his most prolix law papers. The other patient, a learned professor, came under the cruel hands of one of his brethren; the tumour was laid open from the top to the bottom, and, before the extensive cavity was filled up, the unfortunate sufferer was confined nearly *two months,* immoveable on his back.

The third volume begins with an account of the cure of Hydrocele by seton, according to the author's improved method. The editor has added some remarks; from which we learn, that Mr. Pott was inclined to change his opinion, with regard to the superiority of the mode of cure by the seton, and that he had resolved to give the cure by injection a fair trial.

Of the *Cancer Scroti.* The author was inclined to consider this disease as confined to chimney sweepers; but, from the accurate observations of the editor, we can have no doubt that it occurs in other persons, who have been exposed to the exciting cause, viz. the effluvia of *soot.*

This volume concludes with some observations on hæmorrhoidal excrescences, by the editor, in which Mr. Pott's mode of cure is accurately detailed, and satisfactorily illustrated.

ART. XV. *The London Practice of Midwifery: to which are added, Instructions for the Treatment of Lying-in Women, and the principal Diseases of Children. Chiefly designed for the Use of Students and early Practitioners.* Second Edition, revised, corrected, and enlarged. 12mo. pp. 300.

WE cannot but regret that a publication, which we should otherwise strongly recommend to the perusal of practitioners, should be disgraced by the encouragement which it affords to those accoucheurs who may be more disposed to push themselves into notice by tricks and artifice, than by open and honourable practice. The au-

thor in many places seems as well able, and as well inclined, to teach the most ready way of playing upon and turning to account the fears and prejudices of ignorant women and nurses, as to instruct his readers in the true principles of their profession. These are the great defects of this little book.—We were in hopes, that in a second edition these exceptionable passages would have been expunged: but they were probably thought of too animating and lively a description to be spared; and perhaps these very parts may have materially promoted the sale of the work.

In other respects this edition is much improved; the barbarous mistakes in the names of foreign authors, which rendered the last edition often unintelligible, have been corrected; the language has, in several places, been rendered more perspicuous, though in this respect much room is still left for improvement; some new matter has been added, and other amendments of less consequence have been adopted.

On the whole, this is an useful manual of midwifery, and may be safely recommended to young practitioners.

ART. XVI. *Practical Observations on the Disease of the Joints commonly called White-swelling; with Remarks on Caries, Necrosis, and Scrofulous Abscess.* A new Edition, with considerable Additions and Improvements, illustrated with seven coloured plates. By Bryan Crowther, Surgeon to Bridewell and Bethlem Hospitals. 8vo. pp. 290. Callow.

IN the pamphlet, of which the present work is a republication, Mr. Crowther first proposed the use of artificial drains in white-swelling; a practice which the successful result of general experience has since fully justified. At the same time he communicated to the public the mode of preparing that highly useful application the *ceratum sabinæ*. The valuable information, which we derived from the original essay, induced us to regard the second edition with the most favourable anticipations, which have not been disappointed by the perusal. The quantity of new matter, which Mr. Crowther has introduced, is so great, that we cannot regard this merely as a new edition of the original pamphlet, and therefore feel justified in giving our readers some account of the additional chapters. A clear description of disease, with a satisfactory explanation of the mode of treatment, both obviously derived from actual experience and observation, and uninfluenced by any theoretic notions, are the characteristics of this work. It is particularly interesting to the student, as the subjects are not usually treated in systems of surgery, and as it contains a collected mass of information, which would be

sought for in vain in any other book. We do not mean, by these observations, to restrict our praise merely to the practical parts of Mr. Crowther's book; the new chapters on Necrosis, disease of the Spine, and affection of the Hip-joint, contain some ingenious and well digested remarks on the nature of these disorders, expressed in precise and forcible language, which shew that he is as well qualified for other discussions, as for those of a merely practical nature.

We meet with two new and very important observations concerning white-swelling. Those writers, who are obliged to remedy their own want of practical information, by borrowing from their predecessors and from each other, are fond of representing scrofula as a disease of debility; and they follow up their theory by prohibiting in practice all means which are not of a strengthening kind. Nothing can be more opposite to experience, than such statements, as applied to the scrofulous affections of joints.

'My own experience of the complaint,' says the author, 'will not allow me to accede to the above conclusions; for, as I have pursued with great activity the antiphlogistic treatment, which Mr. Bell has recommended, I think I must have witnessed its unsalutary tendency ere now.—With respect to the advantages of local bleeding in the generality of cases of white-swelling, and even of phlebotomy in some instances of the complaint, in which very active inflammation has taken place, I can appeal to many patients who have received the greatest benefit from this mode of treatment. Local bleeding should always be first resorted to, and continued for a length of time, until obvious improvement in the joint takes place, by a reduction of the swelling, and a releasement from pain. Weeks, nay months, have passed with obvious amendment; and nothing else has been done but cupping the joint, the repeated application of leeches, and the continued use of cold saturnine applications.' p. 61, 62.

In his former edition, Mr. Crowther had adopted the generally received opinion, that bones, when affected by scrofula, become enlarged. He deserves much credit for the very open and candid manner in which he acknowledges his error. It is a point of great importance, when we consider that surgeons are often influenced in proposing amputation by this supposed enlargement of the bones. We therefore extract the passage, containing the true statement of the question, as ascertained by the most recent investigation.

'It is now more than four years since Mr. Lawrence, anatomical demonstrator at St. Bartholomew's Hospital, inquired of me, whether I had seen instances of the bones in white swelling being enlarged, for, if I had, it was a circumstance new to him, as not a single specimen was to be found in the museum of the hospital, or had ever occurred to him, notwithstanding the constant and repeated opportunities which have been afforded him in collecting and dissecting diseases. My own practice has given me some opportunities, after the removal of the limb, to investigate the actual condition of the joint; and the cases, as far as external examination could determine, would have led any one to imagine the bones were spread: they certainly seemed to be so; yet, upon accurately investigating them, they

were not in fact the least increased in bulk. I believe this gentleman to be the first person who has made this important remark, which I conceive it the more necessary to notice, as I fear that the idea of the tumefied state of the bones, in cases of diseased joints, might, if not contradicted, induce some practitioners to have recourse to amputation.' p. 13, 14.

The deceptive feel of enlargement, which has led to the general erroneous opinion on this subject, is explicable from the thickened state of the soft parts, which surround the affected bone.

The same treatment, which has proved so successful in white-swelling, is recommended in necrosis: viz. leeches and cold washes, when there are symptoms of inflammation; and, afterwards, counter-irritation by means of blisters kept open for a long time by the ceratum sabinæ.

In the chapter on disease of the spine, Mr. Crowther contends, that mechanical assistance is not beneficial, where the bodies of the vertebræ are affected. He shews, that the destruction of the bones, caused by the disease, is never repaired by new matter; that the chasm left in the spine can only be remedied by the approximation of the vertebræ above to those below the affected part; and that instruments, which tend to prevent that process of union, are completely contrary to principle. His arguments on this point are decisive. He is rather severe in his remarks on Sir James Earle, who has written in favour of the use of instruments; but we can readily pardon a slight degree of warmth, like the present, which seems to arise from zeal for the improvement of the profession, and not from any personal motives.

The principal novelty in the observations on diseases of the hip-joint, consists in an explanation of that elongation of the limb, which has been noticed in the early stages of the disorder. Surgeons have been much puzzled to account for the leg being actually longer than the sound limb, while it is very obvious that the head of the femur holds its proper situation in the acetabulum. Mr. Crowther has discovered that this lengthened state of the limb is only apparent, and that the pelvis sinks on the affected side in a degree precisely equal to the elongation of the leg. In fact, the whole trunk is thrown from its just bearing by the patient endeavouring to favour the diseased joint. We give the following accurate description of the appearances in our author's own words:

'When the patients were laid on the table, with the whole body in a straight line, the anterior superior spinous process of the ilium on the affected side, was lower than that of the sound side, just in proportion to the difference in the length of the two limbs: this was about a quarter of an inch in one patient, and a full inch in the other. A similar obliquity of the pelvis was equally manifest from behind, when the patients were placed on the abdomen, with the precaution of laying the body in a straight line. It was impossible to place the pelvis in its natural horizontal position, without bringing the body into a curved line; and when we did this, the lower extremities, instead of falling straight under the body, deviated from the perpen-

dicular towards the diseased side. A straight line, drawn along the spinous processes of the sacrum, and continued downwards, did not fall between the lower limbs, as it would in a pelvis possessing its natural position and bearing, but it touched the heel of the sound side.

'The obliquity of the pelvis in these cases can, I think, be ascribed to no other cause than that of the patient's endeavouring to throw the weight of the body, as much as possible, on the sound hip. The pain, and the general weakness of the affected limb, induce a constant effort of this kind: hence, we observe children bending the knee and hip, and hopping about on the sound limb. The pelvis naturally sinks on the diseased side; and this deviation, which would affect the centre of gravity of the whole body, is counterbalanced by a bend of the upper parts of the trunk towards the sound side. Accordingly, we found that both the patients inclined the head very manifestly over the sound shoulder,' p. 268.

CHAPTER III.

ANATOMY, PHYSIOLOGY, MATERIA MEDICA, CHEMISTRY, PHARMACY, DIATETICS, &c.

ART. I. *The Muscular Motions of the Human Body.* By John Barclay, M.D., Lecturer on Anatomy, &c. &c. 8vo. pp. 590. Murray. Printed at Edinburgh.

NO anatomical or physiological work in our language contains a minute and comprehensive account of the muscular fibre, the laws of irritability, the structure and situation of individual muscles, and their actions simple and combined. The writings of Borelli, Winslow, Albinus, Haller, Barthez, Bichat, and many others of less note, afforded almost all the materials necessary for a perfect treatise on these subjects. We expected, that Dr. Barclay would have arranged accurately and perspicuously these somewhat scattered, though valuable materials; and that he would have endeavoured to render this department of physiology complete, by correcting the errors and supplying the deficiencies of his predecessors. How completely we have been disappointed in our expectations, will be seen in the sequel.

In a dedication, designed by Dr. Barclay to point out some of the most important advantages which may be derived from a knowledge of muscular motions, he assures his pupils, that 'the wonderful manner in which all the varieties of solids and fluids, of magnitudes and forms, of odours, of colours, and of organizations, that distinguish the different species of animals, are formed from the very few simple

elementary substances, that enter into the nourishment of plants, can only be understood by studying these motions.' He further asserts, 'that we may trace, in this way, the modes of these combinations to causes that are visible, distinct, and within the reach of every observer.' The pupil, even of very limited physiological information, will hardly require to be reminded, that the nature of those infinitely varied changes, among the elementary particles of the circulating fluids, by which they contribute to the growth and nourishment of parts, has hitherto bid defiance to every species of investigation; and, notwithstanding the author's assurances, we have no hesitation in affirming, that the work before us does not contain any fact or reasoning, which is calculated to throw a single ray of light on this obscure subject.

After observing, that 'the philosopher and divine might find almost innumerable proofs of the power, the wisdom, and the providence of Deity, in tracing to the combined actions of muscles the endless sources of distinction among the individuals of the human species, in the expression of the countenance, and the varied motions of the extremities, and likewise all the singular varieties of language, that have ever distinguished, that now distinguish, or that *ever will be found to distinguish* nations;' our author informs us, that he has attempted to render this treatise more particularly conducive to the improvement of physic and surgery. Yet an attentive perusal has discovered to us hardly any facts which will admit of frequent or essentially useful practical application by the physician. A minute acquaintance with the established laws of irritability, with the dependance of this power on different states of the nervous system, and its intimate connexion with the functions of respiration and circulation, appears to us highly necessary in the rational and scientific practice of medicine: yet we will hazard the imputation from the author, of 'indolence, ignorance, and presumption,' and venture to affirm, that there is no part of physiology, a knowledge of which is of less real utility to the physician, than the combined or even the simpler actions of muscles. Nor are we disposed to appretiate so highly, as the author himself has done, the value of his own observations in cases of luxation and fracture. What can the minute knowledge of compound muscular actions avail in the dislocation of a limb, when the muscles, that perform these actions, are torn or deranged by the injury?—or in fracture, where, if the broken ends of the bone ride, they must be reduced to their natural position by a force, which myology can seldom assist, and of which it can never supersede the necessity?

The merits of the new nomenclature, originally proposed by our author in a pamphlet, published six years ago, and invariably employed in the present work, would not form a proper subject of discussion on this occasion: nor shall we consider the real extent of the correction, improvement, or change, which the descriptive language of anatomy required. From the length of time, however, during

which Dr. Barclay's terms, expressive of position and aspect, have now been unsuccessfully suggested to the attention of anatomists, we venture to predict, that they will never be received into general use. It appears to us, that the author, by persisting, under such circumstances, to employ in his writings, as well as in his lectures, a language which is thus altogether peculiar to himself, is far from facilitating the business of instruction, or rendering his labours useful to their full extent in advancing the progress of physiological science.

We were no less surprised than disgusted, at meeting, in the commencement of the work, with 215 pages of arrangements and synonyms; which are already published in so many forms, that they are, or might be known to every inquirer. In his complete history of all the muscles of the body, Albinus thought proper to affix to the detailed description of each, a copious list of its different names; and we can readily conceive that the convenience and advantage of the reader were consulted in this addition. But it is under circumstances widely different, that Dr. B. has prefaced his work by a republication of these obsolete and voluminous synonyms, copied at full length from the Historia Musculorum. The very few, who are disposed 'to perceive the many difficulties, with which anatomists had to contend in improving this part of their science,' might have been referred to the original work, where their names are collected with 'great learning and industry.' For we cannot allow ourselves to think, that ninety pages were necessary, to render the reader 'sensible of the many obligations that are laid upon him, to speak of the errors of his predecessors with lenity and indulgence, and to mention their names with gratitude and respect.' p. 71. Among the contents of this part, we find also separate arrangements of the muscles in regions, as proposed by Albinus, by Innes, and by Dumas, followed by the names of Albinus in alphabetical order, and the synonyms of the two latter writers under each name. We have only to observe, on this subject, that classifications of the muscles, or any similar arbitrary divisions, are not calculated to convey the slightest information. The regions and synonyms of Dumas were totally unworthy of notice. Our opinion of this writer coincides with that of Dr. B.; and we cordially agree with him in reprobating that restless fondness for innovation, which proceeds to generalize before the collection of sufficient premises, which makes us regret the neglect of the sound and philosophic maxim of Lord Bacon; 'hominum intellectui non plumæ addendæ, sed potius plumbum et pondera.'

Part II. commences with a tabular view of 'the muscles peculiarly belonging to the osseous structure, arranged according to the several bones to which they are attached, formed on the plan of similar tables by Cowper and Winslow. It is, however, constructed rather differently from those of the latter anatomist; and appears to us to be the best arrangement of the kind. The bones, in the usual order of their demonstration, are placed in the middle column; and

the muscles connected to each bone are enumerated under it. The muscles attached to the bone by insertion, are printed in Roman characters; while those, connected by origin, are in Italics. When any muscle has other insertions, they are found in the third column in Roman characters; when other origins, in the first column, in Italics. We subjoin a specimen.

CLAVICULÆ.

Costæ primæ.	Subclavii.	
Occipitales Process. spin. cervicis et dorsi	Cucullares	Scapulæ.
Sternum	*Sternomastoidei.* ..	Ossa Temporalia.
Sternum.	*Sternohyoidei.* ..	Os Hyoides.
Costæ et Sternum.	*Pectorales.*	Humeri.
Spinæ Scapularum.	*Deltoidei.*	Humeri.

When we state, that this is the best table hitherto constructed, we would not be understood as insinuating, that such arrangements are of much importance. The highest utility to which they can aspire, is that of affording occasional assistance to the beginner. The author obviously overrates the value of his labour, when he expects it to be consulted by the anatomist, and by the medical practitioner, who has either forgotten, or may never have known, the attachments of many muscles. Dr. B. seriously asserts, that his table will enable the physiologist to explain the functions of the muscles, and to elucidate sympathies and pains; and that it will guide the surgeon in setting fractures and reducing every species of dislocation! He adds, with great simplicity, that a '*young* anatomist may not readily perceive how this kind of knowledge is to be gained from the table.' We venture to affirm that an *old* one will be equally unable to make the discovery.

The second chapter of this part consists of a singularly promiscuous assemblage of vague, superficial, and unimportant observations on *carneous* and tendinous fibres; on cellular membrane; on arteries, veins, absorbents, and nerves; and on life and irritability. These observations, it would seem, are intended to comprehend every thing necessary to be known respecting the structure and properties of muscles; since, as Dr. B. informs us, muscles are composed 'of carneous (i.e. *fleshy*) and tendinous fibres, interspersed every where with cellular membrane, and the ramifications of arteries, veins, absorbents, and nerves, *all of them alive and all of them irritable.*' p. 210. The whole of this chapter, which is completely foreign to the subject of muscular motions, is filled with discussions that want the charm of novelty, both in matter and expression, and consist of a long desultory detail of received opinions, which certainly gain no additional interest from the mode of discussion.

Instead of a minute or even simple description of the structure of muscle, we find it mentioned, under the article 'Carneous Fibres,'

that 'carneous fibres constitute flesh!' and that they are also 'the distinguishing character of muscles;'—that 'they derive their principal power from a vital source;—and that this power is such during life, as to enable them to rupture tendons, dislocate bones, and break them to pieces.' This statement of the mighty power of muscles must have been derived from a similar wonder-exciting description of their strength, in a modern system of anatomy: though we were not a little surprised at observing that Dr. B., who is so devoutly zealous to discover, in all the phenomena of muscular action, new 'proofs of the power, wisdom, and providence of the Deity,' has omitted to adopt also the pious reflections, with which the original description has been accompanied. 'Those who will admire,' says the great author* to whom we have alluded; 'those who will admire the ways of Providence, should know how to admire! Nature is not seeking to compensate for want of power, by the advantages of pullies and levers, and mechanical helps; nor is it in the forms of the parts that the infinite wisdom is to be found;—the living power, which compensates for the want of levers, which allows every where power to be sacrificed to the beauty of form, which has strength in convulsive and violent actions to break the very bones;—this is the act of infinite wisdom, on which our admiration should chiefly dwell.'†

Dr. B. remarks of the cellular membrane, that its cells contain a quantity of oil, 'which is to be *mixed with the mucous secretions*;' that this adipose matter, from being a bad conductor of caloric, may perform also the functions of *Fleecy Hosiery*, and that the oil may occasionally serve as nourishment, particularly during diseases. Lastly, we are told, with much precision, 'that it is *not unlikely* that it performs some general functions, necessary to every part of the system, but varied somewhat according to circumstances.' p. 225. Had not the author referred to the 'Anatomie Generale' of Bichat, we should not have supposed, from his remarks on the cellular membrane, that he had ever read the extensive view of this texture, with which the ingenious French physiologist commences his work.

In his observations on the veins, our author adopts that division of the vascular system into two parts, which was first proposed by Bichat. The names of these divisions were derived by that physiologist from the different colours of the contained blood, and could not possibly give rise to confusion or mistake. Dr. Barclay's terms of 'Systemic' and 'Pulmonic' would occasion endless ambiguity and mistake: we had hopes, that he would have been induced to relinquish them, for the very solid reasons, which have been assigned elsewhere.‡

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* J. Bell, Syst. of Anatomy, vol. i. An author may deserve the epithet of *great* from various considerations. One of these is the magnitude of his works.

† P. 106, 107.

‡ Edinb. Review.

The remarks on the abstruse and difficult subjects of life and irritability, are singularly perplexed; insomuch, that we have totally failed in our attempts to discover their meaning in several instances. We should have presented the reader with some specimens, had we not preferred his advantage to any justification of our own opinions. He need not regret our determination on this subject, as we have scarcely been able to extract a single rational or intelligible idea from this part of the work. We shall, however, quote two paragraphs; since we have no doubt, from the context, that they were meant by the author to communicate some very obvious as well as important truths. We are not ashamed to say, that we have not had sufficient penetration to discover their precise meaning;—others may be more successful.

'As for their (the irritabilities) continuance,' says Dr. B. 'after the causes have ceased to operate, that must be inversely, as the constancy and extent of their dependency on the operations by which they were supported, or directly as the permanency of the general consequences of these operations; and as for their continuance in a separate organ, that must be inversely, as the constancy and extent of their dependency on the vital principle and those auxiliaries that have ceased to operate; and directly, as the influence of those auxiliaries that continue to operate.' p. 264—5.

'The insensible changes made upon the organs (by external impressions) would seem to be at first insensibly communicated to the vital principle, from the vital principle insensibly communicated back to the organs, till gradually increasing by the continued and alternate recoil, strong emotions at last are excited, consciousness roused, and the voluntary powers brought into action, with a change of place, attitude, or conduct, suited to the newly induced dispositions. It is thus we see ends frequently obtained, and the interests of the animal and species promoted, in a way that indicates superior design, intelligence, and foresight; but a design, intelligence, and foresight, in which the judgment and reflection of the animal never were concerned; and which, therefore, with *Virgil, and other studious observers of nature*, we must ascribe to the Sovereign of the Universe, in whom we live, move, and have being.' p. 267.

The third chapter of the second part is chiefly occupied with the explanation of some diagrams, illustrating the most familiar properties of the lever, and other propositions in illustration of muscular actions. These are peculiarly unfortunate, when considered as attempts at explanation or elucidation; for there is no instance of simple or combined muscular motion in the human body, which is not much more intelligible than these diagrams. To the student, who is ignorant of mathematics, the simplest of the propositions, contained in this chapter, will, we apprehend, be totally unintelligible; while to him who is acquainted with the first principles only of mechanical philosophy, it is unnecessary to state illustrations, which are much more satisfactorily explained in every elementary treatise on Mechanics. Dr. B. is far from possessing the faculty of communicating even a simple mathematical truth in that elegant or perspicuous language, which is necessary to render its repetition agreeable.

The third, and last part of the work, to which, indeed, the preceding divisions are to be considered as merely preliminary, contains 'different arrangements of the muscles, according to the motions in which they co-operate; and occasional explanations also of the manner in which they co-operate.' To review minutely all the chapters of this division, would occupy much more time than the importance of the subject demands, or our limits would allow. Dr. Barclay examines the motions of all the joints in the body, and of all other parts which have any muscular fibres in their composition. He goes through these in the terms of the new nomenclature, and measures accurately the actions of all the muscles that can be concerned. Although the observations are by no means original, and are mostly unconquerably dull, they will be found, on reflection, correct, and in general pertinent, offending more from the tedious uninteresting manner, in which they are expressed, than from any essential inaccuracy. We were disappointed at finding the practical deductions so very few, considering the more than moderate expectations of instruction in this particular, which the author's preface had excited in us.

In speaking of the neck, Dr. B. observes, that its 'motions, exclusive of those on the vertebra dentata, consist of inflections, *sternad*, *dorsad*, *dextrad*, and *sinistrad*,* and in all the intermediate directions.' In this view, all rotatory motion of the cervical vertebræ on their axes is excluded. 'They are susceptible in a slight degree of a lateral contortion, which, though scarcely sensible between any two contiguous vertebræ, becomes conspicuous when a number of vertebræ are moved together. It is evidently to these degrees of contortion, and to the inflections following one another in a particular order of succession, that we are to ascribe the optical deception which has suggested the idea of rotation; an idea, certainly, which neither an accurate view of the phenomena, nor an anatomical inspection of the structure, are calculated to support.' p. 329. In the third chapter, the author applies the same observations to the lumbar vertebræ: and, as it is allowed that no rotatory motion exists in the back, the conclusion will follow, that no portion of the vertebral column admits of rotation. Dr. Barclay's observations on this point are not convincing to our minds. We confess that we 'feel a sort of reluctance in renouncing an opinion, which our own observation has confirmed.' We do not consider the rotation of the trunk on

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* We cannot doubt that such of our readers, as may be ignorant of the new nomenclature, will be immediately induced, by the attractive appearance and pleasing sound of the words printed in Italics, to resort to the author's original account for complete information. In the mean time, that our quotation may be intelligible, we just state, that *ad* is employed by Dr. B. as an adverbial termination; consequently, that *sternad* means *towards the sternal aspect*, or *sternally*.

the lumbar vertebræ as very extensive; and think that Winslow's phrase, 'comme sur un pivot,' as applied to this motion, might lead to an erroneous opinion of its degree. Yet if Dr. B. will fix the pelvis in the dead subject, as he has done in the living body, and, laying hold of the ribs on each side, endeavour to twist the trunk, we will venture to predict, that the motion of rotation in the lumbar vertebræ will be sufficiently sensible, to excite a little scepticism as to the accuracy of his former judgment on this point. We do not think it worth while to dispute with the Dr. whether *rotation* or *contortion* be the more appropriate term for this motion; and, provided he admits the fact, we promise to call it by whichever name he likes best. Dr. Barclay, on this occasion, offers a laboured apology for differing in opinion from Winslow. We do not see the necessity for this parade. Dr. B. is not the first who has presumed to dissent from Winslow's statement; he advances no new or peculiar opinions; and he has been anticipated in his objections by Bichat, a writer whose merits would suffer nothing by a comparison with those of Winslow, and whose well arranged analysis of the motions of the human body, and the powers employed in their production, would lose none of its lustre when placed by the side of Dr. Barclay's.

The *interspinales colli* are omitted in the list of muscles, which inflect the head and neck backwards; the posterior bellies of the *digastrici* are enumerated among those which bend the head forwards, and the great pectoral muscles among those which bend the trunk forwards; neither of which effects seems to us possible. The explanation of the motions of the *ulna* does not appear quite correct. After stating the fact pointed out by Winslow, that, during pronation and supination, the ulna is rotated slightly in directions opposite to those of the radius, Dr. B. observes in explanation, that, although the ulna is not susceptible of rotation at its junction with the humerus, yet it possesses 'a certain freedom of motion, sufficient to allow its distal extremity to follow the carpus in pronation and supination.' p. 399. We fear, however, that this 'certain freedom of motion' is no motion at all. Dr. B. will find that every rotation of the ulna is the consequence of a corresponding movement of the humerus. The ulna never exhibits the rotatory motion alluded to, where the pronations and supinations are performed with the fore-arm, bent to a right angle with the humerus.

As a favourable specimen of our author's manner, we shall subjoin his account of some of the motions of the trunk.

'The flexures observed in the vertebral column, and which are in general less marked in the young subject than in the adult, are produced chiefly by the action of muscles: yet not produced as if they were merely accidental effects, but evidently as means adapted to an end, contributing their aid in enabling us to balance the weight of the body on its centre of gravity when standing or walking. The well formed vertebral column is, for these

reasons, on the dorsal aspect, always convex from the os coccygis to the junction of the os sacrum with the ilia, then concave from that point of the sacrum atlantad to near the true ribs, then convex as far as the neck, then concave again till it reach the atlas. Had it been straight, the centre of gravity would necessarily have been so restricted in its range, between the dorsal and the sternal aspects, that we could not with steadiness have supported the trunk on its sacral extremities, and at the same time have extended completely the hip and the knee joints, seeing these joints and the joint at the ancle co-operate with the curvatures of the vertebral column, and, like these curvatures, are also alternately concave and convex on the dorsal aspect. For, if it be obvious that all the parts in the opposite aspects must be in equilibrio, sternad, dorsad, dextrad, and sinistrad, it is equally obvious, that the farther they extend in the opposite aspect, provided they be manageable, the more easily and the more readily will the balance be maintained; as may be seen by lengthening and shortening the extent of the pole by which the dancer balances his body on the tight or slack rope. It is also evident, that when any part of the body is inclined to one side of the centre of gravity, some other part, to preserve the equilibrium, must be proportionally inclined to the opposite. Hence, throwing the atlantal extremity of the trunk considerably sternad of the centre of gravity, so as to touch the ground with the fingers, its sacral extremity must always be thrown proportionally dorsad, and the heel and the knee joints at the same time inflected in opposite directions. Hence, no person with the heels and sacrum in contact with a wall raised perpendicular to the base on which the heels are supported, can touch the ground with the points of his fingers, and preserve his balance; hence, those spines, which are very much bent at one of their curvatures, are generally found proportionally bent at some of the others; and hence those spines which, in consequence of disease, have their curvatures lateral, have them alternately concave and convex on the lateral aspects, in the same manner as the well formed spines have them on the sternal and dorsal aspects.'

The observations on the motions of the scapula will enable the reader to judge, how far the introduction of new terms has tended to give precision or perspicuity to anatomical description.

'The motions of the scapula are, atlantad, sacrad, ster-mesi-laterad, dorsa-mesiad, rotatory, or combinations of these motions. In moving sternad, it cannot reach to the mesial plane, on account of the clavicle, it must follow a direction that is ster-mesi-lateral, and when its basis approaches that plane on the dorsal aspect, compelled by the ribs, it must move in a plane that is dorsa-mesial. Its rotatory motions are, when it rolls, as it were, on an axis perpendicular to its plane, when its acromion is moved atlantad and its base sacrad, or, vice versâ, the base atlantad, and the acromion sacrad at the same time; or when it rests on the ribs as a fulcrum, with its head and base alternately approaching and alternately receding from the peripheral aspect of the thorax.' p. 375—6.

'As none of the motions belonging to the scapula are ever performed by a single muscle, when the scapula is moved directly atlantad, the atlantal forces acting on the base and acromion are the motors, the dorsa-mesial and ster-mesi-lateral the directors, and the sacral forces the moderators; when moved sacrad, the same forces continue the directors, the atlantal forces become moderators, and the sacral the motors. When it is moved dorsad and mesiad, the dorsa-mesial forces are the motors, the atlantal and sacral the directors, and the ster-mesi-lateral the moderators: the mesial

forces in these cases being moderated by the ribs. When moved in the ster-mesi-lateral direction, the ster-mesi-lateral forces are the motors, the atlantal and sacral continue the directors, and the dorsa-mesial become the moderators.' &c. &c. &c. p. 379.

In the chapter on the motions of the sacral extremities, we find an account of a contrivance to remedy the inconveniencies arising from a rupture of the *tendo Achillis:* we shall willingly lay it before our readers, as containing far more interesting matter than the generality of Dr. Barclay's pages.

'From the gemellus being not only a flexor of the tibia, but extensor of the tarsus, it must be evident that the one must be inflected, and the other extended, whenever the tendo Achillis is ruptured. To effect those purposes, a cord should be fixed to the heel of the shoe, and a ring, somewhat like a dog's collar, but in two parts, be made for the thigh, at some distance, proximad of the rotula. Between a hook fixed in the ring and the heel of the shoe the cord should be drawn so as at once to extend the one and inflect the other; while, to prevent the lateral motions of the foot at the ancle, a mould should be formed of that pasteboard which is used in the binding of large folios. It is readily softened in warm water, and applied in that state to the rotular and lateral aspects of the joint, and extending a little proximad and distad, it will soon harden, and preserve the parts in exactly the position in which they gave it shape. The ring here mentioned is entirely the suggestion of an ingenious and intelligent artist, who had the tendo Achillis ruptured, and who complained, when the cord was tightened round his thigh, that it occasioned a deal of uneasiness; and when it was slackened, to admit of compresses being interposed, that it was always ready to slip. On trying the ring of his own contrivance, which he previously lined with a soft substance, he found it equally secure as the cord when it was tightened; and, in consequence of its pressing merely on a point which he could alter by the rolling of the femur, it scarcely produced any uneasiness. By such an apparatus, which he procured at a trifling expense, and the use of crutches, which enabled him to continue the greatest part of his former habits, he recovered completely in the course of less than seven weeks.'

The chapter, on the motions of the eye, is concluded by remarks on the circulation of the organ as affecting its convexity, and a most fanciful, but at the same time pompous, comparison between it and the sexual organs, as operated on by the progress of age. 'In the later periods of life, when the sensibility of the system is diminished, when the circulation of the fluids is languid, when the supply furnished is less, and the waste greater,—the cornea loses a part of its convexity, which no action of the muscles can restore. The like causes may be seen operating on the sexual organs. In the evening of life, the memory may recal, and the imagination attempt to revive, those mental emotions, by which they grew turgid to perform their functions; but the system will plead irresistibly, that the time is past; that the streams of life are but scantily supplied, and that the organs, like the sapless leaves withering in autumn, are hastening to decay.' p. 481—2.

The motions of respiration, of the alimentary canal, of the male

and female organs of generation, of the sanguiferous system, and the retention and expulsion of urine, are treated in the latter part of the work. We cannot follow our author through these interesting and important subjects; and we feel the less regret, since the reader will find but little original matter; any apparent novelty in the observations originating entirely from the peculiar language in which they are stated.

Having concluded our detailed examination of Dr. B.'s work, we are obliged to state, that its style and general arrangement have produced on us an impression as unfavourable, as that arising from the manner in which the individual parts are treated. The language is stiff, laboured, and often ridiculously inflated. There is a particular structure, and even a certain length of sentence, from which he seldom deviates, and which renders the perusal of 600 pages of his writing most oppressively fatiguing. We were forcibly struck too with the anxiety, which Dr. B. displays throughout the whole of his work, to impress his readers with a conviction that he has invariably exhausted the subjects on which he treats, and that either 'the decrees of Providence,' or the 'inscrutable nature of the vital principle,' or 'the undefined capabilities of organs,' or the 'operation of causes modified by effects, and of effects in their turn operating as causes,' for ever preclude us from the hope of bringing more of the secrets of the animal economy into light, than he has succeeded in disclosing.

We really cannot decide to what class of readers the book is adapted. Surgeons will never study the combined actions of muscles, in order to set fractures and reduce luxations. Much less do we expect to see this work the companion of the dissecting-room: its want of conciseness, and the obscurity arising from the language, will form an invincible obstacle to its general and familiar use. It requires too much exertion of thought to suit the superficial mode of acquiring knowledge, which is pursued in the education of most anatomical students, and is deficient in that attractive charm, which wins our attention to subjects far less interesting than the present. Though we consider it a proof of bad taste to carry 'l'eloquence jusques dans l'anatomie,' yet there is a mode of expressing ideas concisely and with precision, which gives its proper grace to anatomical science. Here Dr. Barclay fails; nor is the deficiency supplied by any embellishment. We have nothing of the spirit and bold familiarity, which give a zest even to the meandering thoughts and inaccuracies of John Bell: we have none of the simplicity and ease of Innes; none of the clear arrangement, the flowing and natural style, which distinguish the writings of Bichat. Still we consider this book to possess a certain kind of value, as a tolerably extensive collection on the subject of muscular motions. It would have been more consulted, and consequently more useful, if stripped of its irrelevant matter, and written in the terms of accepted anatomical language.

From another person, and under other circumstances, we might even have regarded it as an example of laudable industry; but we expected a far different, and much better production, when we considered Dr. Barclay's situation as a public teacher, his considerable opportunities, his reputation for learning, and the length of time that his attention has been directed to the subject of myology.

ART. II. *Colloquia Anatomica, Physiologica, atque Chemica, Questionibus et Responsis; ad Usum Ingenuæ Iuventutis accommodata.* Auctore Archibaldo Robertson, M. D. Edin.

THIS little volume consists of fourteen short colloquies on the structure of the different parts of the human body, their chemical composition, or the chemical analysis of the substances which they secrete, and the functions which they are observed to perform during life.

It cannot be supposed that the candidate for the 'Summi Honores Medicinæ' will content himself with the anatomical and physiological information which he can obtain from this source alone. To those, however, whose knowledge and research have been minute and extensive, a summary view of the subjects of their studies may often be perused with considerable advantage. Regarded in this light, the 'Colloquia Anatomica' have been composed with sufficient judgment and accuracy, and are justly entitled to commendation.

Out of regard to those who are resolved to place their sole trust in this work, we recommend it to the author to revise and amend the 'Responsa' in p. 6, de formatione ossium; in p. 9, where gelatine is placed for cartilage; in p. 14, where the synovia is said to be partly secreted by the capsular ligament; in p. 23, where the lungs themselves, instead of the muscles of respiration, are stated to be partially under the dominion of the will; in p. 50, where the existence of a vital principle is not only admitted, but where a local habitation is assigned to it in the brain; in p. 88, where the motions of the head, instead of the elevation and depression of the larynx, are said to modify the tones of the voice. The questions de glandula thyroidea appear quite accidental in p. 98; their natural position is in p. 86. The chemical opinions in p. 108—9, are not the most judicious that could have been put into the mouth of the candidate. The teeth ought to have a place in the eighth colloquy.

ART. III. *Anatomical Plates of the Arteries of the Human Body, accurately coloured, and reduced from the Iconis* [Icones] *of Haller, with a concise Description.* 8vo. pp. 194. Cox.

IN this work we find fifteen engravings, representing the distribution of the arteries of the human body, and accompanied by an enumeration of those vessels in the order in which they arise. These plates are diminished copies of the Icones of Haller. Though some errors might be pointed out, we do not find much ground for complaint on the score of inaccuracy in the plates, or in the descriptions, as far as they go.

We have, however, no very great opinion of the advantage to be derived from this, or from any other work of the kind. To medical practitioners, who, from residing at a distance from the schools of anatomy, have few opportunities of examining the dead body, correct anatomical plates on a large scale, such as those of Albinus or Haller, may be of some service, by giving a general notion of the parts, which they are intended to represent; but even the largest and most accurate plates very ill supply the place of the parts themselves; and where the plates are reduced to a very small scale, as in the present instance, they lose so entirely their distinctness, that we conceive they can be of no use whatever.

But it appears, from the preface to the work, that the author expects it will be found useful to students, by assisting them in their dissections. We are sorry to be of a different opinion. The dissector, who has before his eyes the parts themselves, can have no need of engravings of any kind;—he ought to have nothing to do with them; and, from what we have observed, we have no hesitation in saying, that all engravings tend more to his confusion than instruction. Nor do we see that the descriptions, which accompany these engravings, are such as are best adapted to the dissecting-room. They descend to a degree of minuteness, which, to the student, must be not only wholly unnecessary, but highly perplexing; and at the same time, that extreme attention is paid to the enumeration of a number of small arteries, which are of no real importance, much is omitted, which ought not to be passed over, respecting the situation of the larger trunks, as considered relatively to the surrounding parts; a branch of anatomy which is of the greatest consequence to the surgeon, and cannot be too minutely investigated.

ART. IV. *Anthropologia: or, Dissertations on the Form and Colour of Man; with incidental Remarks.* By T. Jarrold, M. D. 4to. pp. 261. Cadell & Davies.

'THOUGH the subject of the present work,' the author observes in his preface, 'cannot be regarded as medical, yet it has a relation to medicine; and is, in the author's apprehension, a branch of the animal economy essentially requisite to its promotion. But, notwithstanding this opinion, the promoting of medical science was not the motive which gave birth to these dissertations; *but* a desire to remove every unwarranted prejudice against the person of the negro, and to call the attention of parents to those means by which the beauty and strength of their offspring may be improved.—That these dissertations are imperfect, and in some instances incorrect, will not be denied. They may be so; but such an apprehension does not appear a sufficient ground for withholding the whole. *And, besides,* they are promised to the public in the preface to the *Dissertations, Philosophical, Physiological, and Political, on Man,* in answer to Mr. Malthus's *Essay on the Principle of Population.*' We give the author credit for the ingenuousness with which he has stated his motives for publication; but we should have forgiven him if he had not been quite so punctual in performing his promise to the public, and we think that most of those who perused his former work, would have willingly exempted him from the task of writing again.

A considerable portion of the volume is devoted to the refutation of the arguments of Mr. White in support of the gradation of man. Dr. Jarrold gravely supposes that the advocates for gradation, in short, those who perceive a beautiful order and connexion in the whole of animated nature, believe in the existence of a chain of beings: now, 'the links,' he observes, 'of a chain lay hold on each other, and bear an intimate connexion and resemblance; that species of men which *embrace* the brute, and *is* hand in hand with them in the order of creation, cannot be much unlike them.' But we presently find him labouring to prove, that a man is not a bird; and he has even adduced arguments to shew that an oyster is not a cedar, nor an oak a polypus. We were not surprised to find, that the man who could pursue such childish hypotheses, and seriously attempt to refute them, should not be able to distinguish any variety in the capacity and power of animals; or to hear him asserting, that the sagacity of the elephant does not surpass that of the worm or the caterpillar; and contending, that 'the wine fritter, on the stems and leaves of our garden plants, discharges the duties of its life with as much sagacity as the elephant.'

In the fifth section, some arguments are advanced in support of the opinion, that the human race are of one species; but the author

leaves the subject in greater obscurity than he found it: he cannot reason, and his facts are stated without order or arrangement; dissertations upon men, cattle, birds, and plants, are so blended together, that we are wholly unable to separate them. 'From these facts, and many others which might be added,' he observes, 'it is demonstrable that a great want of resemblance is not a proof of a difference of species in animals; and, by a parity of reasoning, the same may be inferred of the human race.—It is unnecessary to introduce other subjects of discussion into this chapter; sufficient, I think, has been advanced to justify me in saying, that in all that constitute the dignity of man, and his superiority to the brute, the whole human race are equal!'

The two next sections treat of the length of the arms, and of the legs and feet of individuals of different nations. If the author had confined himself to such pursuits, as we cannot doubt his capacity of measuring, we should have been better satisfied with him; though we cannot see what great advantage would result from it. Some of his conclusions are obvious enough; *e. g.* 'the tallest persons have the longest arms in proportion to their height.'—'Short healthy youths have very short arms.'—'I asked my tailor whether he had not noticed the shortness of the arms of children, and also their rapid growth in youth?' "Certainly, sir," he replied, "we are frequently desired to lengthen the sleeves after the young gentleman has done growing in height." But we must not conceal, that the author has been enabled to correct some erroneous statements of Mr. White upon this subject; and shall quote an instance.

'After being so forcibly struck, as Mr. White appears to have been, with the resemblance that gentleman thought he had discovered between the arm of a negro and that of a monkey. Arm! do I say? It is not an arm; the animal is a quadruped, and has no arms. But as Mr. W. has been pleased to distinguish it by that name, I feel no inclination to enter into controversy on the subject. Call it an arm; admire the proportion of its parts; compare it; and, if you please, say it is equal to the arm of a man. Admire the length of the fingers—the flatness of the hand—and if there be no thumb, the circumstance is trifling; a firm adherer to the doctrine of gradation can look over a radical difference.'

In the discussion which follows, on the origin and formation of bone, we can discover nothing that has any pretensions to novelty. We knew, that the phosphate and carbonate of lime entered into the composition of bone; though we were not so confident as Dr. Jarrold seems to be, that all the combinations of lime were derived from the ocean. 'Calcareous earth or lime,' he observes, 'is not a primary earth, but has been added to the globe since its formation, as we are informed by geologists. How was it added? It has no principle of life; it does not vegetate; it does not increase. The fountain of the great deep was broken up, which laid bare the bottom of the ocean, and the waters flowed in other channels; here were

deposited those stores of lime with which the habitable part of the globe now abounds, and the bottom of the ocean again presents the same appearance it had before the flood, and possesses the same deposit.' It is presumptuous in us, we acknowledge, to infer any thing from such statements as that which we have just quoted; but on this occasion we must conclude that our author means, that, previously to the deluge, lime was only to be met with in the ocean, and was deposited in various parts of the earth, in consequence of that great event. But, in another part of his work, he informs us, that calcareous earth originated from animal bodies. These opinions are not more inconsistent with each other, than they are with truth or probability; for lime is present in every part of the globe, it constitutes the chief portion of what have been termed secondary mountains, it is found beneath the surface of the earth, it is a constituent part of several fossils, it exists in combination with many of the acids, and enters largely into the composition of all animal bodies: in fine, it is one of the most abundant materials of natural compounds, and seems to be one of their most essential constituents. Unquestionably it exists in immense quantities in the ocean, and is daily accumulating there: but, without disputing the occurrence of the flood, we may safely affirm, that the immense quantities of lime every where present, are not solely derived from that source. In what manner, we would ask, were animals formed before the flood? Dr. Jarrold will perhaps refer us to another flood, or contend that bones were not constituent parts of animals in antediluvian times. Neither religion nor philosophy profit by such champions. After all his labour, Dr. Jarrold leaves the subject where he found it, and

> 'Like as a dog that turns the spit,
> Bestirs himself and plies his feet,
> To climb the wheel, but all in vain,
> His own weight brings him down again,
> And still he's in the self same place
> Where at his setting out he was.'

The ninth section treats of the human head, and contains a curious mixture of the author's own conceptions with those which he has taken from writers, whose opinions we are sorry to see in such company. Thus the philosophical observations of Camper, of Robertson, of Hunter, and of Smith, upon the formation, appearance, and character of the heads of people of different nations, are obscured by such childish remarks as the following.—'A neat dress supposes a chaste mind.'—'If an attention to the person be not commendable, we blame the neglect of it.'—'No animal ornaments itself, but is satisfied with its own proper covering; *it is unlike man.*' As we proceed, however, the author becomes more profound. 'A limb grows, *because* the system is vigorous, but the skull does not grow from this cause; it is, therefore, in its increase, unlike other parts of

the system.'—'Did the skull grow because the system was vigorous, the brain would not at all times fill it, which is contrary to experience: the skull, *therefore*, does not grow first, and afterwards the brain.' Our readers will doubtless rejoice to hear, that 'the cause of the various shapes the head assumes, admits of an easy explanation:' indeed, Dr. Jarrold has a most happy facility of accounting for phenomena which have long perplexed some of the wisest of men. The reader may take the following as a specimen:

'The *head* is an *elastic* substance; it is a globe more or less eliptical; its contents are sufficiently *fluid* to sink towards the most dependent part: the axis on which this globe is fixed, is in many instances not in its centre, consequently it inclines, and is the *fullest* and *heaviest* in one direction, as has already been noticed.'

The author next offers some observations of a practical nature, and after shewing the great effect which the position of the head has upon elegance of form, and gracefulness of carriage, he contends, that 'dancing lessens the native modesty and bashfulness of youth; it produces familiarity where there ought only to be respect; it gives rise to associations which ought never to have been formed; it lessens the female character in the estimation of the other sex. Dancing never inspires respect, the air it communicates is not calculated to inspire it; and, besides, the best dancers frequently walk ungracefully, so that the proposed end is not answered.' He then proceeds to teach us 'the art of walking with ease,' observing, that a 'soldier is not taught to dance, but to march: he carries his head as he pleases when he is off his duty; but being accustomed to raise his feet from the ground in a soldier-like manner, the carriage of the head and trunk follow of course,' &c. &c. The quakers receive great commendation for not instructing their children to dance; and their manner of walking is termed graceful and elegant; but this is satisfactorily explained from 'the influence of the mind upon the person.' As Dr. Jarrold appears to have paid considerable attention to this important subject, we may inform our readers, that it is his opinion, that 'when the habit shall have become easy, the step may be shortened; for a long step gives to a grown up female an air of boldness.' This dissertation will prove particularly interesting to dancing masters, milliners, and governesses; and we quote the concluding paragraph for the benefit of philosophers.

'I shall here close these remarks, with observing, that as the head has long been considered as the seat of knowledge, it is here attempted to be proved the modeller of the body.' p. 99.

We now come to a dissertation on the influence of the brain upon character, which, among some known and admitted truths, contains much absurdity: indeed this writer's abhorrence of good sense is marvellous; he no sooner stumbles upon a right principle, than he

leaves it, and pursues his own vagaries. Thus, after very wisely declining 'to enter into a controversy respecting the origin of evil, or any other doctrine of religion,' he asserts, what we believe no one will dispute, 'that whatever may be the nature of man, whether contaminated by the fall of Adam, or, as some say, completely innocent at birth, the treatment received in the cradle has a very strong influence on the character through life; a bias is then received, which, in many instances, education cannot correct.' This is very well: but, he continues, 'let me illustrate my meaning. A fit occasions idiotism, it alters the temper, or it injures one of the senses.' 'Again; the disease we call the rickets has a very considerable and permanent effect on the temper and judgment; such children are always grave and attentive; they seldom engage in play with the spirit of other children; they give early tokens of a sound understanding and a virtuous disposition, and raise expectations which their mature years seldom disappoint. These are indisputable proofs that the character of a man may be formed in the cradle.' p. 101. Now, admitting these facts, they merely prove that the brain is affected, by early disorders, or constitutional changes; they do not in the least illustrate the author's position, that the *treatment* in the cradle has an influence upon the human character; nor do they support his argument, that 'the character of a man may be formed in the cradle.' As to his character of a rickety person, we deny it altogether, as being generally applicable. It is true, that we have some splendid instances upon record, of deformed persons, when they have attained maturity, becoming strong in body and powerful in mind: but this has nothing to do with their treatment in the cradle, and merely demonstrates that the powers of mind may overcome the natural obstacles to their evolution.—Dr. Jarrold, however, had more in view than we imagined, when he contended for the superiority of rickety children; for he proceeds to consider whether we cannot imitate it. His piety forbids him to communicate a disease: 'We cannot, we dare not, inflict disease. But, are the stores of nature exhausted? Has she but one means of accomplishing an end?' He then expatiates upon the beneficial effects of storms and lightning, and discovers, that we can 'imitate their rage; we can make them subservient to our purpose.'—'Can we not collect even lightning in a bottle, and use it at our pleasure? Reasoning, therefore, from analogy, I infer, that the diseases which are known to affect the future character, might be imitated *so as not to hurt;* the good might be separated from the evil.' We would gladly have informed our readers how this was to be accomplished, but the author very provokingly begins the next paragraph with these words; 'but *setting this idea aside,*' and instead of satisfying our curiosity, goes on to tell us that 'a lamb, reared in the house, is of a very different disposition to [*from*] one of the flock reared in the field. Domestic animals are very different to [*from*] those that are wild of the same

species'—'a bird or a quadruped caught in a snare, is with difficulty tamed; but, taken from the nest, it is more easily so,' &c.

The best written part of the book is the section upon physiognomy, but this is very short; and the refutation of some of Lavater's whimsical notions, by no means repays us for the dulness of the other chapters. On the subject alluded to, however, we find many opinions advanced, to which we can by no means assent. Thus, we are told, that the eye is incapable of expressing sorrow, 'the depressing passions it cannot speak: tears are equivocal, they may be of joy, or grief, or of corporeal pain; *besides*, tears do not arise in the eye, but at a distance from it, they pass over and bedew it, but it is not their source; a tear, rolling down the cheek, speaks as forcibly as on the eye; it is the tear, and not its source, which excites attention. The eye attracts and invites, but it cannot repel; the eye cannot frown.' Again; 'the eyes of a brute reflect no feeling of the heart, no emotion of the mind; they cannot sparkle in ecstacy, or melt in softness, or invite to confidence by their calmness; they direct to *its* food, and guide *it* in *its* passage; but *it* is not by the eye *it* expresses *its* feelings, unless *it* be that of anger, by a slight protrusion; then the muscles of the face are drawn back, and of course the eyes appear fuller: it is not to the eye that we look to discover the temper in which an animal approaches us.' p. 134.

The remaining sections treat of the Nose, the Cheek-bones, the Jaw-bone, the Hair, the colour of the Skin, the cause of the colours of Birds and Vegetables, the Sun's influence, and the influence of the Skin upon Health, &c. &c. Among the numerous facts, which the author has collected from preceding writers, we meet with some that are interesting; but he has been singularly unsuccessful in applying them; the philosophical reader is disgusted with the total want of arrangement, where order and perspicuity are essentially requisite; while there is no attraction of style, no beauty of description, and no eloquence to fascinate those who read only for amusement. We fear, that critics alone will be doomed to peruse this 'thing of shreds and patches,' this common-place-book of an indiscriminating collector, whose original observations have enabled him to ascertain, that all men are equal in faculties; that a worm enjoys, in equal measure, the sagacity of the elephant; that '*no* mother mourns for a still-born child, because no circumstance can be remembered concerning it which occasions affection,' &c. &c.—In short, a work less creditable to the author, or to physiological literature, has seldom come under our notice.

ART. V. *Anniversary Oration, delivered March* 8, 1808, *before the Medical Society of London, on the General Structure and Physiology of Plants, compared with those of Animals, and the mutual convertibility of their Organic Elements. Published at the unanimous request of the Society.* By John Mason Good, F. R. S. Senior Secretary to the Medical Society. 8vo. pp. 56. Longman & Co.

THOUGH we have great respect for the varied learning and talents of Mr. Mason Good, we cannot commend him for his judgment or prudence in publishing so hasty and imperfect a production as the oration before us, notwithstanding 'the unanimous request of the society' to whom it was addressed. It contains, indeed, a good deal of curious matter, which, by a more skilful composer, might have been handled with great effect, and moulded, perhaps, into a very sublime harangue; but the present orator seems to have been desirous only of huddling a number of facts together, disregarding all neatness of arrangement, all elegance of style, and employing, without scruple, the most vulgar and colloquial phrases. He ought to have considered, that, on such occasions, chief regard is paid to the *manner* in which the discourse is delivered; that the speaker is expected to exalt, not to debase, his subject; that he seldom aims at telling all he knows, but selects merely the most striking and important facts, placing these in the strongest point of view, and leaving in the back-ground those which he cannot with propriety bring forward,——

——————————'quæ
'Desperat tractata nitescere posse, relinquit;'

while he studies to give a general effect to the whole, by the easy connexion of his materials. If Mr. G. had attended to these rules, he would have made a more impressive, though, perhaps, less erudite speech; he would have consulted more his own fame, and the dignity of those who heard him; and if he had still ventured to publish, he would have met with a more favourable reception from the worshipful fraternity of reviewers:—at all events, he would not have been so indecorous as to shock our ears by talking, in a grave anniversary harangue, of such things as 'dinner-tables,' 'drawing-rooms,' 'steaks,' 'privies, and rotten eggs.'

In this oration, it is Mr. G.'s object to trace the various analogies that exist between plants and animals with regard to propagation, structure, economy, and decomposition. The subject, however, is treated in so cursory a manner, and the proofs adduced in support of the author's opinion are so vague and inconclusive, that we deem it unnecessary to enter into any analysis of the pamphlet. The following passage will serve as a specimen of the style in which it is

composed, and, at the same time, convey the only novelty which it contains.

'The manuscript now in my hands, is an autographic note, written by the late Lord Bute, himself an excellent zoologist, to his friend the late Reverend William Jones, of Nayland, in Suffolk, as justly celebrated for his theological publications, and was communicated to me by Edward Walker, esquire, of Gestingthorpe, Essex, (who married Mr. Jones's only daughter,) a gentleman who is himself well versed in botanical science. In this note, after deservedly complimenting Mr. Jones on a philosophical work he had just produced, his noble correspondent adds, "Lord Bute cannot help imparting to Mr. Jones a singular observation made by him in June last, at the baths of Abano, near the Euganian mountains, in the borders of the Paduan state, famous in ancient authors: they are strong sulphur boiling springs, oozing out of a rocky eminence in great numbers, spreading over an acre of the top of a gentle hill. In the midst of these boiling springs, within three feet of five or six of them, rises a tepid one, about blood warm, the only source used for drinking; but the extraordinary circumstance is, that not only confervas, &c. were found in the *boiling springs*, but numbers of small black beetles, that died on being taken out and plunged into cold water. How amazingly must the great Author of nature have formed these creatures to bear a *constant heat* of above 200 degrees!"' p. 31—2.

ART. VI. *A Tract of the Nutriferous System of Men, Quadrupeds, and Birds; and all other Creatures which have Livers.* By James Rymer, Surgeon, R. N. 8vo. pp. 45. Baldwin.

THIS publication, though in itself a most insignificant performance, has some claim to notice, on account of the time at which it has appeared; being nothing less than an attempt to unteach physiologists all that they have been learning for these 150 years past, to substitute an exploded hypothesis for a theory confirmed by facts and experiments; in short, to revive the antiquated doctrine of *venous absorption*, and to restore to the liver its pristine celebrity, as an organ of assimilation. We have as great a respect for 'the venerable ancients' as Mr. Rymer can well entertain, but we must be permitted to express our doubts of their skill in anatomy and physiology; though, at the same time, we think it would be a wretched waste of time, and an insult to our readers, to engage in a controversy on the subject with a person who is so manifestly ignorant of the history of that department of science, on which he has the temerity to write, and who has nothing to adduce in defence of his old fashioned notions, but the same arguments which were refuted again and again by the anatomists who flourished in the early part of the seventeenth century, with a few scraps from Dr. Hunter's lectures, and Mr. Cruickshank's Anatomy of the Absorbing Vessels. If Mr. R. be not already cured of his folly, by the slighting reception which his pamphlet has met with from the public, we should not be at all surprised

to see it followed by an essay, shewing that Galen understood the animal economy much better than Harvey, and that the doctrine of the circulation of the blood is a miserable delusion.

ART. VII. *A General View of the Natural History of the Atmosphere, and of its Connection with the Sciences of Medicine and Agriculture; including an Essay on the Causes of Epidemical Diseases.* By Henry Robertson, M. D. 2 vols. 8vo. pp. 809. Longman & Co. Printed at Edinburgh.

ALTHOUGH this can scarcely be regarded as a medical publication, yet as it has a reference to subjects that are connected with the science of medicine, we have given it a place in this division of our Register. The work is divided into three parts; the first and second of which treat of the physical and chemical properties of the atmosphere; and the third, of its influence on animals and vegetables. The author remarks, in the introduction, that as heat, and light, and electricity, are always found in the atmosphere, although they do not form one of its component parts, it is necessary to premise a concise view of their properties and action. This is accordingly done, but in a manner so vague and cursory, as by no means to add to the value of the work, or to the information of the reader. The different physical properties of the atmosphere, its colour, fluidity, density, and elasticity, are then separately considered; a number of well known facts on these different subjects are detailed, and the usual inferences are made from them, but we meet with nothing that is particularly interesting or important. We have next a section on the gravity of the air, its effects upon the barometer, and the causes which produce the variations in this instrument; the third section is on the temperature of the atmosphere, and the varieties of climate; and the fourth is on the supposed change of climate in certain countries. On these several topics we meet with a good deal of information, which appears to have been diligently collected from a variety of sources; and it is probable that Dr. Robertson has read or consulted most of the valuable authorities that we possess on these subjects. We cannot, however, bestow much commendation upon the use that he has made of his materials. In a work, like the one under consideration, where the author does not profess to bring forward new matter, we naturally expect to have the old placed in the most advantageous point of view: if we do not look for originality, we are at least entitled to method and correctness. But these qualities are not found in the volumes before us.

The section in which the author treats of the change of climate that is supposed to have taken place in certain countries, is one in

which he appears more in the light of an original inquirer, not content with merely detailing the sentiments of others. The subject is a very interesting one; and some specious arguments have been adduced to prove, that the climate of the British Isles has gradually become less genial, during the last half of the eighteenth century. Our author adopts this opinion, and takes a good deal of pains to enforce it, by a numerous body of facts which he has collected in its favour. We do not, however, think that he has, after all, proved the point, or indeed brought it into a state of greater certainty than that in which it was before he entered upon the investigation. He seems, unfortunately, to have attended more to the number than the value of his facts; and by jumbling together indiscriminately those that are important and well established with such as are weak and trifling, he has entirely failed in producing conviction. A long chapter on meteorology then follows, in which the author enters minutely into the consideration of the different phenomena of the weather, the causes of its changes, and the circumstances which assist us in forming our prognostics concerning it. Evaporation, rain, winds, different kinds of meteors, and the aurora borealis, are among the chief topics which engage the author's attention. The facts that are collected respecting them are, as usual, numerous; but, as usual, they are thrown together without judgment, and are therefore perused with little interest.

The third part of the work, which contains an account of the chemical properties of the atmosphere, is executed much in the same style with those which we have already examined. In one respect, however, it may be considered as preferable; it is more concise, and the facts that are adduced, are in general better ascertained. But if we give the author this degree of commendation, critical justice requires us to state, that in proportion as his remarks are less open to animadversion, they are nearly in the same proportion commonplace. In fact, such an account of the chemical properties of the atmosphere as we meet with in Dr. Robertson's publication, might be drawn up by the merest smatterer in chemistry in the course of a few hours, with the assistance of Dr. Thomson's system, or perhaps even without ascending higher than Mr. Joyce's dialogues.

We at length come to the third part of the work, 'the influence of the atmosphere, as a chemical fluid, on animals and plants;' and we commence with the subject of respiration. The general character of this chapter is similar to that of the preceding ones; it is without method or arrangement, and therefore, although it contains a good deal of matter, it makes little impression upon the mind, and cannot be regarded as forming any addition to our stock of scientific information; and we have not merely to complain of the defects of the author in the arrangement of his materials, we have to bring against him the more serious charge of gross ignorance, or, at least, of unpardonable carelessness. Thus we are told, that expiration 'is not effected merely in

consequence of the muscles having ceased to act, whereby the former motion was accomplished; but it is performed by the united action of certain other muscles, which have a power to elevate the ribs, by which the thorax is compressed, the space occupied by the lungs, when inflated, being diminished; therefore the whole or the greatest part of the contents must be expelled.' We consider it as a remarkable circumstance, that any person should presume to write upon respiration, who is so ignorant of his subject, as to suppose that the cavity of the lungs is diminished by the elevation of the ribs. He then refers to some antiquated opinions of M. Bremond, who imagined that the lungs 'are not entirely passive in respiration, but have even the power of dilating and contracting themselves, independently of, but synchronous with, the motions performed by the ribs and sternum.' We scarcely expected to have seen M. Bremond's forgotten experiments again brought into view, and considered as the foundation of an opinion.—When upon the subject of respiration, the author is naturally led to give an account of the nature and properties of the blood, in which we meet with not a few trifling and even erroneous propositions, among the confused heap of facts with which they are surrounded. When speaking of the division of the blood into crassamentum and serum, he says, that 'it is owing to the variation in the quantity of this liquor (the serum) at different periods, that the consistence of the blood is not always found the same, and this must likewise induce an occasional variation of its specific gravity.' We have always heard it stated, and we believe accurately, that the crassamentum is by much the most variable part of the blood. The meaning of the following sentence we are quite unable to comprehend: 'The separation of the mass into coagulum and serum, is in consequence of it having been previously congealed, an appearance, the cause of which has not been hitherto explained.' When speaking of the nature of the change which the blood experiences when it becomes arterialized, our author boldly asserts, that oxygen gas may be detected in arterial blood, resting his assertion upon some hasty experiments of Fontana, and the suspicious authority of Girtanner.

On the subject of animal temperature, which next comes to be considered, we begin by taking a view of the theory of Dr. Crawford, to which our author objects in such a way, as, in our estimation, to prove that he does not understand the subject upon which he writes. The following paragraph is to us very incomprehensible. It indicates a confused state of mind, which arises either from ignorance or inattention.

'This hypothesis, respecting the cause of animal heat, does not materially differ from the opinion that was originally entertained on the subject by Dr. Black, and which was afterwards ingeniously supported by Lavoisier; but as Hassenfratz justly observes, that were the temperature of animals entirely depending on the decomposition of the atmosphere in the lungs, according to the theory entertained by these philosophers, that organ must

at all times have been much higher in temperature, than any other part of the body,—a circumstance that is by no means confirmed by experience, as the region of the heart enjoys a degree of temperature only more constant, but not exceeding that of the extremities; this objection has been supposed to be obviated by the capacity of the arterial blood for caloric having been discovered to be greater than in that which circulates through the veins, of course it requires an higher degree of heat to raise it to an equal temperature; but admitting the accuracy of this proposition, and that animal heat depends on the decomposition of the air in respiration, the more recent experiments of Davy and Spallanzani tend to shew, that the original data are fallacious on which the entire theory is founded. For, if a portion of the atmosphere be absorbed in its entire state, the caloric arising from its decomposition must be gradual, as it takes place in the course of circulation; therefore the quantity of heat disengaged in the cavity of the lungs, must be merely what arises from the absorption of oxygen gas uncombined.' Vol. ii. p. 135—6.

How any one, who has made himself master of Dr. Crawford's theory, can consider Hassenfratz's objection as just, we are at a loss to determine: it may excite some surprise that it should ever have been made, and we can only account for it upon the supposition that Hassenfratz never saw Crawford's work, but received an imperfect account of it through some other publication, a circumstance which appears to be not unfrequently the case with respect to our continental neighbours. Such a mistake is scarcely to be tolerated in Hassenfratz, and the repetition of it by Dr. Robertson is absolutely unpardonable. We are uncertain what he means by the absorption of the atmosphere in 'its entire state:' if he means in its gaseous form, it involves a supposition which no one maintains; or if it refers to the absorption of both the oxygen and nitrogen in the proportion which is found in the atmosphere, it implies a circumstance which forms no part of Crawford's theory.

The other objections are equally trifling or irrelevant; such as, that the body is affected by the changes of external temperature, that animals are not equally hot at all periods of their lives, that by habit we learn to bear cold with less inconvenience, and that persons who possess different sized chests, yet generate the same degree of heat.

The latter part of the work is on the subject of contagion, upon which the author seems to have bestowed a good deal of attention. He proposes to investigate the three following points; 1st, What influence does the atmosphere possess in engendering epidemical diseases? 2d, What is the nature of the other bodies that are supposed to possess the same power? 3d, And what is the action of the atmosphere in propagating these effects? Against the opinion, that the atmosphere, by some specific change, acquires the property of producing specific diseases, Dr. Robertson argues with some effect. We do not, however, think it necessary to follow him through the whole of the discussion, as the arguments which he employs are

neither so new nor so decisive as to require a formal examination. The principal grounds on which he rests his opinion, are the facts respecting epidemic fevers, which seem to shew, that the disease is not so generally diffused, as might be expected to be the case, were it produced by a general alternation in the state of the atmosphere, which, it is supposed, would be experienced over an extensive part of the earth's surface. With respect to the disease which lately prevailed in Spain, he conceives, that if it had depended upon any particular state of the atmosphere, it could not have been confined to individual cities, but must have been equally experienced over the whole of the kingdom. The same observations apply to the yellow fever of America. His second argument is, that if epidemic diseases depended upon the state of the atmosphere, the same kind of disease must always take place in the same season, and under similar states of the air, which he endeavours to prove is not the case. This argument we do not conceive has much force; and, in general, we apprehend, that the facts rather make against the author's inference.

After giving his own opinion on the subject of contagion, the author proceeds to examine the grounds upon which those writers have proceeded, who have taken the opposite side of the question, and have denied the existence of specific contagion. We think he is successful in showing, that, in many instances, they have been inconsistent with their own premises, and that they both acted and reasoned as if they believed in the existence of contagion, at the very time that they were endeavouring to prove the contrary hypothesis. Dr. Robertson instances M. Assalini, who, while he is endeavouring to convince his readers that the plague is not produced by any specific contagious matter, uses precautions to defend himself against it, and gives directions, which must have been entirely useless upon the supposition that the disease was occasioned by a peculiar condition of the atmosphere. The author closes his discussion with the three following propositions.

'1st, It has been ascertained, that no change of the ordinary physical or chemical properties of the atmosphere takes place in countries during the prevalence of pestilential diseases.

2dly, The occurrence of epidemics is not prevented by the succession of seasons, nor by remarkable changes of weather; the plague, influenza, and other epidemics, having been observed to prevail for years, without suffering any abatement of their virulence.

3dly, That although it be admitted, that some of the most malignant species of epidemics arise from causes that are not originally of a contagious nature, yet this circumstance appears to be already sufficiently explained, as being the consequence of the malignant nature of those causes having previously propagated a disease, which in its course has generated a matter capable of producing a certain definite train of symptoms at any distance from its original source; and it is owing to this peculiar circumstance, that it is frequently observed, that the diseases occasioned by contagion very

often do not resemble those in type by which the contagious matter had been originally produced.' Vol. ii. p. 344—5.

Having thus endeavoured to ascertain, that fever is produced by the action of a specific matter, Dr. Robertson proceeds to make some remarks upon the nature of this supposed substance. All that can be advanced upon the subject must, in a great measure, be conjectural; for the data are so scanty, as scarcely to offer any thing which can be considered even as the foundation of a plausible hypothesis. Our author has not in any degree diminished the obscurity that hangs over the subject; he has rather, indeed, added to it, by indulging in whimsical notions, and by not always stating with perfect accuracy the few facts which we possess.

With respect to the general character of these volumes, we think it unnecessary to say more than we have already done in our examination of them. When we cannot bestow commendation, we wish to be silent, especially in a case like the present, of a writer who possesses a considerable share of information, and who, when his judgment becomes more matured, and when he acquires more dexterity in the management of his materials, may become a useful labourer in the field of science. We shall only offer one farther remark, that, in works of this description, which profess, as their principal object, to give a summary view of the facts and opinions that have been brought forward by others, it is highly important to give accurate references, for the purpose of enabling the reader to examine the authority upon which the writer builds his assertions, and to inquire more minutely into any particular branch of the subject. This has been almost entirely neglected by Dr. Robertson; for we consider the reference as of very little or no value, when the name of the author is all that is mentioned.

ART. VIII. *Analysis of the Mineral Waters lately discovered at Cheltenham.* By Frederick Accum, H. M. R. I. A. &c. 12mo. pp. 89. Kearsley.

NOTWITHSTANDING the great resort to these fashionable springs, it would appear, that the analysis of the water had not been performed with any great degree of accuracy. The analysis that is generally referred to, was made above 20 years ago by Dr. Fothergill, and with respect to one of the most important of the constituents, the iron, it was even at that period confessedly imperfect. As far as a perusal of these experiments can enable us to judge of their merit, we think Mr. Accum has been very successful in the accomplishment of the task which he had undertaken. He appears to have exercised a considerable share of ingenuity in the contrivance of his processes, and to have varied them in such a manner as to have amply attained

the object of his research. The results, no doubt, must be taken upon his own authority; but we have no reason to doubt his accuracy. We shall lay before our readers the account of the contents of the water, both as given by Dr. Fothergill and by Mr. Accum, from which the superior correctness of the late analysis will be at once evident.

A gallon of the water, according to Dr. F., contains,

	grs.
Salt composed of sulphated soda and sulphated magnesia	480
Muriated soda	5
Muriated and carbonated magnesia	25
Selenite	40
Oxyd of iron, nearly	5
	555
	cub. inch.
Carbonic acid	30·368
An air, chiefly azot, mixed with some hepatic	15·184
	45·552

According to Mr. Accum.

	grs.
Muriate of Soda	219·75
Sulphate of magnesia	98·25
——— of Soda	80·01
Muriate of magnesia	40·00
——— of lime	36·00
Carbonate of iron	7·15
Sulphate of lime	85·01
	566·17
	cub. inch.
Carbonic acid gas	12·07
Oxygen gas	4·03
Atmospheric air	1·21
	17·31

Besides this, which is the spring that was originally resorted to, Mr. Accum gives an almost equally elaborate analysis of five others that have been more recently discovered. The first of these, which he calls the strong sulphurated saline well, contains a smaller quantity of salts, but it holds in solution eleven cubic inches per gallon of sulphurated hydrogenous gas. The carbonated steel-well contains only a small quantity of earthy or neutral salts, but nearly as much carbonate of iron as the old spring. The chalybeate weak saline well differs from the last chiefly in containing less iron. The weak sulphurated saline well differs from the second principally in the smaller quantity of its ingredients; and, lastly, the milk well, so called from its peculiar taste, consists of a water slightly impregnated with earthy and neutral salts, and containing a minute quantity of iron.

ART. IX. *Philosophical Transactions of the Royal Society of London for the year* M.DCCC.VIII.

THE philosophical transactions for the year 1808 contain some valuable papers on the subjects of chemistry and physiology, of the chief of which we shall give a brief account, beginning with Mr. Davy's detail of his discoveries on the composition of the alcalies and earths.

In the paper which he read to the society in the former year, on the connexion between chemical affinity and electricity, he suggested, that the application of this agent, by means of the galvanic apparatus, might enable us to decompose many substances which had been hitherto regarded as elementary bodies, and he commenced his operations on the fixed alcalies. They were submitted to the action of the voltaic pile, in their solid form, but so far moistened, as just to render them conductors of the electric fluid, when the potash was observed to undergo a remarkable change; an effervescence took place from the positive surface, while, at that connected with the negative wire, small metallic globules made their appearance, which, when exposed to the air, became quickly covered with a white film, or even exploded in a state of combustion. These globules, it seems, were the base of the potash, and possessed all the characteristic properties of a metallic body, except in their small specific gravity. Nearly the same kind of body was produced by submitting soda to the same process. The very rapid oxidation which these alcaline metals undergo upon exposure to the atmosphere, renders it extremely difficult to ascertain their nature and properties. They were found to be best preserved in distilled naphtha; but the metal from potash was lighter even than this fluid, the specific gravity of which, in its purest state, is estimated at ·77. At 100° it became perfectly fluid; at 50° it was soft and malleable; and at 32°, brittle. It appeared to be a good conductor of heat and electricity, and had, as we have before stated, a most powerful affinity for oxygen. By its union with this substance, it was converted into pure potash. When exposed suddenly to the air, at an elevated temperature, it produces a violent combustion, and the same effect takes place from the contact of water, and even of ice. It unites to phosphorus and sulphur, and it amalgamates with mercury. The metallic base of soda is, in most respects, like that of potash; its specific gravity, however, is considerably greater, and it requires a high temperature to procure ignition. Mr. Davy concludes, from his experiments, that potash is an oxide consisting of 86 parts of its metal, and 14 of oxygen, and that soda consists of 80 parts of metal to 20 of oxygen.

Having, in this satisfactory manner, ascertained the nature of the fixed alcalies, Mr. Davy turned his attention to ammonia. The composition of this substance appeared to have been accurately ascertained, but some circumstances are mentioned which lead us to suspect the correctness of the experiments that have been performed on it; and in a subsequent paper, the author makes it extremely probable, that the volatile, as well as the fixed alcali, is a metallic oxide. The nature of the substance did not permit him to operate upon ammonia in the same manner as upon potash and soda; the method that he took, was to place a globule of mercury on a piece

of muriate or carbonate of ammonia, and to make it a part of the galvanic circle, by rendering the salt positive and the mercury negative. In this state of things, the mercury became considerably increased in bulk, and metallic crystallizations shot out around it, which seemed evidently to depend upon the basis of the ammonia forming an amalgam with the mercury. It was impossible to preserve this amalgam unaltered for the smallest portion of time, so as to observe its properties with any degree of minuteness.

By employing a process somewhat similar, the metallic basis of the alcaline earths, lime, barytes, strontites, and magnesia, were also obtained. The earths were slightly moistened and mixed with the red oxide of mercury, and a globule of mercury was placed in the mixture. The globule was then rendered negative, while a plate of platina, on which the earth rested, was brought to the positive state; an amalgam was by this means formed between the mercury and the different earths that were employed. The same process did not succeed in the reduction of silex and alumine; but by fusing them with potash, charging them with positive electricity, and in this state touching them with a platina wire negatively electrified, light was emitted, and small globules formed, which exploded when exposed to the air, and brilliant scales became attached to the rod, so as to indicate that a metallic matter had been produced from these earths. Here for the present Mr. Davy's brilliant train of discovery terminates;—a train almost unparalleled, and not excelled even by Dr. Priestley's series of discoveries on the aeriform fluids.

The next papers which we shall notice, are two by Mr. Home on the use of the spleen. In the course of some observations which he made on the structure and functions of the stomach, he was led to suspect, that, when any very large quantity of fluid is taken into it, it does not all pass through the pylorus, nor is it removed by the absorbents; but that it is carried off by some other channel. This point Mr. Home endeavours to prove by experiments, in which, after having tied the pylorus, a quantity of fluid was injected into the stomach, and upon examination, after some time had elapsed, part of the fluid had disappeared, while there was no visible trace of it in the absorbent vessels. At the same time the spleen was observed to be turgid; and upon being cut into, its cells were found distended with a fluid. An infusion of rhubarb was given to an animal, and, after some time, the colouring matter was detected in the cells of the spleen, while it could not be perceived in other parts of the body. From some other experiments of a similar nature, Mr. Home is led to suppose, that the use of the spleen is to serve as a reservoir for receiving the superfluous fluid that is taken into the stomach; for which purpose its spongy texture is peculiarly suitable. At the same time he confesses, that he is unable to detect the vessels which form the medium of communication between the stomach and spleen.

We do not feel disposed to place much confidence in the hypothesis, nor do we consider the experiments as by any means warranting the author in his conclusions.

Dr. Thomson of Edinburgh has given us a paper containing an elaborate account of the oxalic acid, in which he minutely investigates both the composition of the acid itself and of its salts. One of the most interesting parts of the paper consists of some observations in confirmation of Mr. Dalton's theory of the constitution of bodies, as far as respects the mode in which their particles unite to each other. The author finds that the superoxalate of potash contains exactly twice as much acid as the neutral oxalate, and that the same proportions take place in the oxalate and superoxalate of strontian. The paper concludes by an analysis of sugar, which very nearly coincides with that proposed by Lavoisier. Dr. Woollaston's paper on the superacid and subacid salts contains a farther developement of the fact which was noticed by Dr. Thomson, respecting the exact proportion in which the acids and their basis unite, thus affording a strong argument in favour of Mr. Dalton's hypothesis. Here, as in the case of the compounds of oxalic acid, the elements unite either in equal quantities, or in some proportions that are multiples of each other; thus the sub-carbonates of potash and of soda, each contain exactly half the quantity of acid that the neutralized carbonates do, while the super-sulphate of potash contains precisely twice as much acid as the sulphate. If nitric acid be added to he superoxalate of potash, a salt is produced which contains $\frac{1}{4}$ of the weight of the potash; to this Dr. Woollaston gives the name of the quadroxalate of potash.

Mr. Knight, who still continues his researches into the physiology of vegetables, has performed an experiment which shews, that the opinion generally adopted, respecting the convertibility of bark into alburnum, is erroneous. He removed pieces of bark from an apple and from a crab tree, and placed them in close contact with the opposite kind of tree; after some time both pieces of bark adhered, the apple bark to the crab tree, and the crab bark to the apple tree. Alburnum was produced in due time under these pieces of transposed bark; and, from observing its texture, it was found, that it did not correspond to that of the bark under which it was formed. Mr. Knight gives other reasons in favour of his opinion, that the bark is not converted into alburnum, but he conceives that there are sufficient grounds for supposing, that the alburnum is deposited by the bark. The alburnous tubes have been generally regarded as the passages through which the sap ascends; but Mr. Knight considers them as intended to serve rather as reservoirs for the sap, than as vessels through which it moves. He conceives that the cellular texture is better adapted for this purpose, and endeavours to prove, by experiment, that it is capable of transmitting fluids through its substance.

Among the most valuable papers in this volume, must be ranked that of Messrs. Allen and Pepys on Respiration, in which they shew the effect produced by the lungs on atmospherical air and oxygen. Their apparatus consisted of a large gasometer, from which they inspired, connected by tubes and stop-cocks with smaller gasometers, into which they expired. Respiration was conducted through this apparatus, until the larger gasometer was exhausted, and then the expired air was examined both with respect to any change of bulk or of composition which it might have experienced. The general result was, that the air had undergone a small diminution in its volume; considerably less, however, than had been previously supposed to be the case with air that had been respired; the azote did not appear to be either increased or diminished, but 8 or $8\frac{1}{2}$ per cent of the oxygen had disappeared, and had its place filled up by an equal bulk of carbonic acid gas. When the same air was several times sent through the lungs, the quantity of carbonic acid amounted to about 10 per cent. When pure oxygen gas was inspired, the quantity of it that disappeared, and of carbonic gas that was formed, was much larger; and it appeared that a part of the oxygen was absorbed into the system. Oxygen seemed also to be absorbed when the same portion of atmospheric air was frequently respired, until a feeling of suffocation was produced. No other gas of any description is evolved from the lungs in the act of respiration, nor is there any proof of water being generated by the union of its component parts.

Mr. Brande has given us some valuable observations on the subject of calculi, in a letter which he has addressed to Mr. Home. He describes the external appearance and chemical constitution of their bodies, as found in the different parts of the urinary organs, and under a variety of different circumstances. The conclusions which he draws from his observations are in general similar to those that have been formed by preceding experimentalists; although he is led to conclude, that calculi, consisting entirely of uric acid, are of much less frequent occurrence than had been supposed. Of 150 calculi taken from the human bladder, 16 only were composed of pure uric acid. The calculi of the horse, ox, and other animals, were examined, in all of which was found a considerable quantity of carbonate of lime.

The only paper which remains to be noticed, is one on Cretinism by Dr. Reeve. Having had an opportunity of examining four cretins at Martigny in the summer of 1805, and finding that three of them were without any appearance of *goitre*, the author is inclined to dispute the accuracy of Foderé's assertions respecting the connexion of goitre and cretinism: but his observations appear to us too limited to enable him to draw any conclusion on the subject. In the anatomical museum at Vienna, he saw the skull of a cretin, who had died at the age of thirty, from which it would appear, that in

this singular disease, the greater part of the bones of the cranium are never completely formed and united: the fontanelle, for instance, was found still open, and the second set of teeth remained in their sockets; the zygomatic and maxillary processes of the os malæ were wanting; the ossa nasi were unusually small; the nasal processes of the superior maxillary bone very large; the temporal bone appeared imperfectly formed, and its mastoid and styloid processes were altogether wanting; the occipital bone, on the contrary, was larger than usual, and numerous ossa triquetra were found along the whole course of the lambdoid suture. The general details contained in this paper, though given as the 'results' of the author's own observations, possess very few claims to originality.

ART. X. *Practical Observations on the Radix Rhataniæ, or Rhatany Root, a Production of Peru; containing an Account of its Sensible Qualities—its Powers as a Tonic or Stomachic Medicine, &c.* By Richard Reece, M. D. &c. 12mo. pp. 55. Longman & Co.

IF Dr. Reece had been content with recommending new medicines and medicine-chests to the notice of the public, we should have treated him with much more gentleness, and perhaps have allowed him some degree of praise for his proper diffidence. However, we do think he deserves credit for his endeavours to diffuse the knowledge and extend the use of the valuable drug, which forms the subject of the present pamphlet; though, like the proposers of most new remedies, he has rather exaggerated its virtues, and described it as a medicine of more general powers, than, we believe, it will be found, on an accurate trial, to possess.

The *rhatania* is a production of Peru, and is supposed to be the root of the cinchona cordifolia. Externally it resembles the madder root; the cortical part is thick and resinous, and seems to contain the principal virtues of the plant; to the taste it is very astringent, and in some degree aromatic and bitter; a decoction or infusion of it precipitates tannin copiously, and forms an ink with the sulphate of iron. Though but lately introduced as a medicine, it has been long known to wine merchants, as an useful ingredient in the manufacture of port-wine; and the extract of it, which is prepared, probably for the last-mentioned purpose, in large quantities in South America, is believed to be the substance sold in the shops under the name of the foreign extract of bark. In its colour and fracture, this extract bears a strong resemblance to native cinnabar; in its chemical properties it approaches to the extract of senna or cinchona, shewing a great preponderance of resinous matter, and throwing down, on the addition of acids, an orange-coloured preci-

pitate. It contains, however, a larger quantity of tannin than either of the above-mentioned extracts.

Its medical properties, as far as they have been ascertained, cannot be said to differ materially from those of Peruvian bark, though, in certain cases, its operation is more speedy and efficacious, and it may be given when cinchona is inadmissible, as when there is any inflammatory affection of the system. It is, too, a more palatable medicine, and agrees better with delicate stomachs; though some patients have complained of a slight degree of sickness after taking it. With regard to the diseases in which it is most successful, we are enabled to speak with confidence, from the trials which we have made with it, and from the accounts of its effects which we have received from others; and we prefer this mode of proceeding, as the cases collected by Dr. Reece are too few, and detailed in too imperfect a manner, to allow us to place much dependence upon them.

1. In several cases of intermittent fever, the rhatania was used with decided advantage; but our experience of its efficacy in this disorder is not sufficiently extensive to enable us to make any comparative estimate of its superiority or inferiority to Peruvian bark. 2. In chronic rheumatism its use was almost always beneficial; and one case of lumbago was cured by a very few doses of it. 3. In leucorrhœa it proved very efficacious, relieving the pains, and stopping the discharge in a short time, even when the complaint had been of long standing. 4. Its chief powers, however, were manifested in diseases of the digestive organs, and in such a manner as to satisfy us, that in all cases where the energy of the stomach is impaired, and where there is a corresponding debility of the whole nervous system, it is a more potent and effectual tonic than cinchona, and operates in a more immediate manner. In gastrodynia, accompanied by dyspepsia, headach, and vertigo, the rhatania generally produced considerable relief; and in asthenia we have seldom been disappointed in our expectations of its invigorating effects.—On the whole, we are inclined to regard this substance as an important addition to our materia medica; and we have heard, with pleasure, that it is likely to obtain a place in the new edition which the London College is preparing of its pharmacopeia. Its cheapness (the price being at present only one third of that of cinchona) recommends it to use in hospitals and dispensaries, where the Peruvian bark is generally one of the most expensive medicines. The dose is similar to that of the latter remedy.

ART. XI. *The Medical Remembrancer; or, Pharmaceutical Vademecum. Being a short Sketch of the Properties and Effects of all the Medicinal Compositions and Simples now in use, as directed by the College of Physicians, in the New London Pharmacopœia. Arranged under their several Classes. To which is added, an Alphabetical Table in Latin and English, with the old and new Names, containing the proper Doses of each Medicine. Intended as a Complete Pocket Manual for the Convenience and Use of Practitioners in general; extracted and digested into order, from the latest Editions of the best Authors.* By Thomas Churchill, Apothecary, &c. 12mo. pp. 71. Johnson.

THE title of this work is sufficiently expressive of its contents. It will be found useful to young practitioners; but consisting chiefly of tables which merely give the name of the medicine, its properties, and the usual dose, it is less interesting than such a work as Graves's 'Conspectus,' which, in addition to the above particulars, enumerates the complaints for which the remedy is commonly employed. It is also inferior, from being limited to the articles in the London pharmacopœia; several valuable preparations being now in frequent use, which are taken from the Edinburgh pharmacopœia; and these not being generally known, many practitioners are ignorant of the proper doses, and even of the properties of these medicines. As a specimen of the work, we quote the following line from one of the tables:

'Argentum nitratum; *olim* causticum lunare. *Nitrated silver; formerly lunar caustic.* Escharotic; *externally only.*

Here a student would be disappointed; upon searching for the dose of argentum nitratum, he finds, that it is used *externally only;* whereas it is given in epilepsy, paralysis, and some other complaints, to the extent of two grains, beginning with $\frac{1}{8}$ of a grain. We have not, however, noticed many errors of this kind; and shall only point out one other. The author states the dose of the aqua ammoniæ puræ to be gtt. vi. to x. greatly diluted. Now, no inconvenience arises from twenty drops being taken at once in a draught of an ounce and a half of any liquid; and it may be increased even to a greater quantity. The man who undertakes to instruct others should be very careful to obtain first the requisite information himself.

ART. XII. *Good Advice for the Husbandman in Harvest, and for all those who labour hard in Hot Berths; as also for others who will follow it in Warm Weather.* By Thomas Beddoes, M. D. 12mo. pp. 26. Phillips. Printed at Bristol.

WE have been much gratified by the perusal of this little tract,—the last publication of the author's which appeared before his death. Though our medical readers cannot be supposed to stand in need of the advice which it contains, they may perhaps derive some information from it, respecting one of the most frequent causes of the disorders with which the labouring classes are afflicted in hot weather, viz. the practice of swallowing large draughts of strong ale and cyder during their work. For our own parts, we had been long aware of the bad effects of this habit in the cyder-counties: but, till we perused this pamphlet, had certainly no idea that it was so general, or had been carried to such a disgusting excess. The feats celebrated by the Village Poet,* are, it seems, but too true, and unfortunately not confined to the ale-house, but exhibited at large in the harvest-field. There men are seen draining a two-gallon bottle at a single draught; and the usual consumption even of those not engaged in task-work, is seldom less than six or eight quarts of cyder. No wonder, then, that they often 'drink away the use of their eyes and limbs before half the day is over!'

It is an opinion, not peculiar, we fear, to the common people, that the great waste of the system, which takes place from hard labour, or much exercise in warm weather, requires a corresponding supply of stimulating drink. This opinion Dr. Beddoes has shewn to be completely erroneous: and he has brought forward sufficient evidence to prove the pernicious consequences, that inevitably result from the custom when long persevered in. The following correspondence with Dr. Willan, on the subject of the *coal-heavers* of London, places this fact in such a strong point of view, that we shall make no apology for quoting it.

'DEAR SIR, *Clifton, July* 28, 1808.

'I am thinking to draw up a few cautions against the habitual intemperate drinking in harvest, and during that profusion of cyder, which is likely this season to be a vast source of mischief in these counties among the labouring class.—I want from you, of all people, an account of the coal-heavers in London—particularly as far as relates to labour, drinking, chief diseases, and term of life.—I subjoin my queries, and remain yours respectfully,

'TO DR. WILLAN.' 'THOMAS BEDDOES.'

* Mr. Crabbe.

'1. *What quantity of porter, &c. does a coal-heaver drink at work in a given time?*

'They work twelve hours daily, drinking each about a gallon of porter. In the pauses of work, or in waiting for waggons, they take gin—not less than a *dozen* glasses.

'2. *Are they intemperate in general, when not at work?*

'Hours out of work, they proceed as above, but somewhat more leisurely. On holidays they are universally drunk from an early part of the day.

'3. *Do they live long in general?*

'They have all the appearances of old age at 45, and most of them die before 50—many of them much earlier. Those who remain alive at 50 and above, pine a few years in workhouses, and die of the dropsy.

'4. *Are they subject to liver complaints, palsy, apoplexy, &c.?*

'They are affected with bilious vomitings, tumour, and tension in the hepatic region, and jaundice repeatedly; many of them with fatal *apoplexy* at an early period of life, 35 to 40. Some with paralysis. They are also liable to pulmonic inflammation, and even to phthisis.—Without much lesion of the organs, many of them fall into a temporary state of extreme debility, which prevents them from working from three to six weeks.

'5. *Are these effects, if they exist, pretty clearly referable to their intemperance, or to what causes?*

'The labour of these men is not nearly so severe as that in other businesses, particularly of blacksmiths and anchorsmiths. Therefore we must chiefly refer their diseases to irregularities and intemperance.

'The *coal-whippers*, who heave the coals out of ships into barges, have much more laborious work than the barge and wharf-men.

'It is true the *whippers* do not stand their work so many years as the heavers, but then they drink daily from two to three times the quantity specified in query 1; that is, from eight to twelve quarts of porter.

'DEAR SIR, *Monday, Aug. 1st.*

'I have seen much of the coal-men, having attended a dispensary near the river-side, chiefly supported by coal-merchants. The answers to your queries I have read to two of these gentlemen, who think them correct, and not at all too strongly stated.

'I am yours truly,

'DR. BEDDOES, Clifton.' 'R. WILLAN.'

As a contrast to this degrading picture of human nature, Dr. Beddoes instances the good effects of a more temperate regimen among the labouring classes in Scotland, in Cumberland, and Westmoreland, and in different counties of Wales; and states a fact, on the authority of Mr. Curwen, which we think cannot be too strongly recommended to the consideration of those to whom habit has rendered porter and ale the first necessaries of life.

'If good milk,' says that friend to the farmer and to the poor (Mr. Curwen), '*could* be obtained, it would, I believe, be frequently substituted in the place of other pernicious beverages. The whole produce of Mr. Faulder's milk farm was for some years carried eight miles to London to be sold—but a nearer market opening to him at

Woolwich, he wisely availed himself of it. And among his customers are the men employed in one of the great iron works carried on at that place. A single individual has prevailed upon his companions to make the experiment of milk as a substitute for porter. The result has proved it to be the best means of quenching the violence of thirst, and securing them from the feverish heat produced by the immoderate use of fermented liquors. They have persevered in this simple and wholesome beverage with an evident benefit to their health, and with an increased ability of exertion.'

The pamphlet of Dr. Beddoes is every way calculated for the description of readers to whom it is principally addressed: it is written in a plain and forcible style: it is printed in a cheap form; and we hope to see it very extensively circulated among the labouring poor.

ART. XIII. *Anatomia Britannica. A System of Anatomy and Physiology, selected from the Works of Haller, Albinus, Monro, Winslow, Hunter, Sœmmering, Scarpa, Cruikshank, Mascagni, Murray, Walter, Sabatier, Meckel, Linn, &c. &c.* Second Edition. 3 vols. 8vo.

NOTWITHSTANDING the decided superiority, which the author of this compilation is confidently disposed to think it possesses over the 'most popular English systems of anatomy,' we have had some difficulty in perceiving wherein it excels, while, in many particulars, we are doubtful whether it even equals those works which he has not hesitated to characterize as 'incomplete,' and 'at once inaccurate, *omissive*, trivial, and unworthy of consideration.' He is not entitled to a much greater share of credit for the skill with which he has selected his materials, and he is far from having displayed any superior judgment in the manner of arranging them. We have a higher opinion of the discrimination of the medical public, than to suppose, that they will be readily induced to bestow more flattering attention on this compilation, merely because it is called the 'Second Edition,' when we have every reason to believe it is the unsold part of the First.

ART. XIV. *The London Dissector; or System of Dissection practised in the Hospitals and Lecture Rooms of the Metropolis, explained by the clearest Rules, for the Use of Students: comprising a Description of the Muscles, Vessels, Nerves, and Viscera of the Human Body, as they appear on Dissection; with Directions for their Demonstration.* A new Edition, corrected and much improved. 12mo. pp. 300. Murray, &c.

WE are not disposed to be very friendly towards the generality of the abridged systems of anatomy, which are published for the use of dissecting rooms. They are, for the most part, superficial and inaccurate; tending to mislead the student, rather than to instruct him; and like the razors, which have been celebrated by Peter Pindar, adapted to sell, rather than to be useful. The London Dissector is by no means free from the faults of its brethren; but, it is justice to add, that it possesses them in a less degree than most of the anatomical *compendia* which we have met with. The descriptions are brief and superficial: but, as far as they go, they are tolerably correct, and conveniently arranged for the dissecting pupil.

The present edition, though the title-page declares it to be much improved, differs but little from that which preceded it. We have found in it, however, a fuller account of the parts, connected with the abdominal muscles, and Paupart's ligament, than is contained in the former edition, extracted principally from Mr. Cooper's and Mr. Lawrence's works on hernia.

In a future edition, we would recommend the author to improve his account of the male perinæum. It is most important that students should be well acquainted with this part; and the description of it, as it now stands, is not only superficial, but inaccurate in several particulars.

ART. XV. *A Practical Synopsis of the Materia Alimentaria and Materia Medica: a new Edition, comprising the latest Improvements in the London, Edinburgh, and Dublin Pharmacopeias.* By Richard Pearson, M. D., Member of the Royal College of Physicians, London, &c. 8vo. pp. 535. Baldwin.

THIS is a new and improved edition of a work which has been some time before the public, and which has received a sufficiently favourable reception. The principal object of the present edition

is to adapt it to the successive improvements that have taken place in the pharmaceutical art, and to insert the additions that have been made to the articles of the materia medica. It is not a publication that displays any peculiar degree of acuteness of understanding or depth of research; but it is in general judiciously drawn up, and the remarks may, for the most part, be depended upon. The chief defect that strikes us, is a degree of repetition in the first part, which treats upon alimentary substances, where bodies, that agree very nearly in their properties, are separately described, as it appears to us, with a degree of useless minuteness. We also perceive somewhat of the same fault in the materia medica, and we think that many articles are unnecessarily expanded; such as are now, by common consent, on account of their inertness, discarded from practice. Upon the whole, however, notwithstanding these imperfections, we would give it as our opinion, that it is a useful work, and one which we should recommend, as forming a valuable addition to the library of the medical student.

ART. XVI. *The Edinburgh New Dispensatory: containing; I. The Elements of Pharmaceutical Chemistry. II. The Materia Medica, or the Natural, Pharmaceutical, and Medical History of the Substances employed in Medicine. III. The Pharmaceutical Preparations and Compositions. Including a complete and accurate Translation of the London Pharmacopeia, published in* 1791; *of the Edinburgh Pharmacopeia, in* 1805; *and of the Dublin Pharmacopeia, in* 1807, *&c. &c.* By Andrew Duncan, Jun. M. D., Regius Professor of Medical Jurisprudence in the University of Edinburgh. Fourth Edition, corrected and enlarged. 8vo. pp. 895. Murray. Printed at Edinburgh.

WE have here to announce an enlarged edition of a valuable work, with which our readers are all sufficiently well acquainted: our only object, therefore, will be to point out those parts in which this differs from the third edition of the dispensatory. We are informed, in the preface, of one important addition, an incorporation into it of the new pharmacopeia of the Dublin College, which Dr. Duncan fortunately procured in time to make use of it, although after his work was put to the press. There are, also, several substances, the account of which is added to this edition; as in the chemical part, the metals that have been lately discovered in crude platina, some bodies that are considered as new vegetable principles, and three new acids. There are several articles introduced into the materia medica, and a considerable number of additions to the pharmaceu-

tical part of the work, arising, partly from alterations originating in the Dublin Pharmacopeia, and partly from the introduction of new compounds. Perhaps, however, the most valuable new matter which this volume contains, is a number of tables consisting of comparisons between the weights and measures of different countries, specific quantities, composition of mineral waters, &c. Besides these important and ostensible alterations, we have found, by comparing different parts of the two works, that many corrections of a more minute kind are dispersed through the present edition, so as to prove that the editor must have revised the work with great care and assiduity.

The approbation which the Edinburgh Dispensatory has received, leaves us little to say respecting its general character: we shall only remark, that the editor appears to have employed every method of supporting the reputation of the work, and rendering it still more deserving of the public patronage.

PART II.

HISTORICAL SKETCH OF THE PROGRESS OF MEDICINE, SURGERY, AND CHEMISTRY, IN THE YEAR 1808.

In a science, constituted as Medicine, where the mind of the inquirer is so apt to be perplexed by the multiplicity of the observations which lie scattered before him, nothing can be more useful than to pause from time to time, to review the different additions which have been made to the stock of knowledge, and to determine with accuracy their respective importance. By such an exercise we shall be enabled to separate our real acquirements from those which are imaginary and useless; and disencumbering ourselves of the latter, to proceed with fresh vigour in the path of investigation. By such an exercise, the study of an intricate art will be simplified, its principles will be methodized, and its practice reduced to a rational system. To the neglect of such retrospective views we are inclined, in some measure, to ascribe the long reign of error in the medical world; the ascendency, which hypotheses the most absurd, and systems the most puerile, have at different times acquired; the not less baneful influence of the authority of great names;—in short, most of the deviations from the true road of inquiry, which have hitherto impeded the advancement of the art, and which still continue to interrupt its progress.

Impressed with these ideas, we have thought that we should perform an useful task, in submitting to the readers of the Register a concise summary of the discoveries, inventions, and improvements, which may take place, from year to year, in medicine and the col-

lateral sciences. In drawing up this sketch, it will be our study to confine ourselves as much as possible to an account of what is really important, passing over unnoticed the erroneous opinions which are advanced, and the frivolous controversies which arise, or only pointing them out when some practical lesson is to be learnt from them. Such we conceive to be the true history of science.

These few remarks we judged it necessary to premise to our review of the progress of medicine during the preceding year, in order that we might not incur the imputation of injustice, if we should omit those details of theory and practice into which it has been usual to enter on similar occasions, and that we might not appear to wander from the subject, if we should sometimes enlarge on the prevalent errors of medical inquirers. Unfortunately, it has fallen to our lot to commence our labours with a period which is marked by no discovery of importance, in which no improvement of any magnitude has taken place in our art, and in which the majority of the publications, which have been presented for examination, have been distinguished more by their faults than by their excellencies. We begin to dread, that the age of observation is gone, —seeing, that so few writers appear, who join to a profound and comprehensive judgment, the talent of accurate discernment, and that the great proportion of our books consist of nothing but endless repetitions of what others have thought and said. "Nulla ætate," says Baglivi in his chapter on the abuse of books, "tanta librorum copia redundavit Medicina, quam ætate nostra; et nulla pariter tanta observationum practicarum inopia laboravit, quam præsenti. Si nonnullos eorum diligenter introspexeris, invenies profecto vel molestam rerum antea dictarum repetitionem, vel nimiam ostentationem rerum novarum, vel malam mixturam veterum cum novis: majorque argumenti pars dissidüs, et contentionibus, quam novorum operum explorationibus, tribuitur.——Et si a talibus libris festivas atque exoticas inscriptiones, philologiam, auctorum citationes, ornamenta, fallacias, superstitionem, aliasque hujusmodi inanes tricas abjeceris, ad nil magni res recidet; imo, pro veris sapientiæ thesauris, umbras amplexaberis, et chimæras."— These animadversions on the literature of medicine in the early part

of the eighteenth century, apply but too strongly to the literature of the present age.

We have seen the very able manner in which the question of Medical Reform was taken up and discussed by the late Dr. Beddoes, a writer whose observations, though not always matured by experience, were generally characterized by originality, and bore decisive marks of a bold and penetrating mind. If a partiality to existing institutions led him to overlook some causes of the degradation of our art, he had at least the merit of directing the attention of his countrymen to many of the inherent defects of our system of medical instruction,—defects which greatly require amendment, and without the removal of which no truly practical reform of the science can be accomplished.

As in some measure connected with the question alluded to, we may mention the attempt which was made by the Commissioners of Military Enquiry, to degrade the profession of physic to a mere mechanical art, by excluding men of superior education and abilities from those higher honours in the army, to which they are so justly entitled, and by adopting as the standard of medical abilities, the number of years which have been consumed, in performing the drudgery, and in learning the routine of the art. Fortunately for science, fortunately for the British army, this attempt has been rendered completely abortive; it was received with indignation; and it has terminated in the discomfiture and disgrace of its advocates. One purpose, however, it has answered. The discussion which it provoked, has served to place in the strongest point of view the advantages of the most distinct separation of the two professions of physic and of surgery: the former has no longer any reason to dread the violation of its just privileges; nor the latter to fear, that, by extending its object, and enlarging its sphere, the utility of the art itself may be lessened.

In the comparative review of the different pamphlets which have appeared on the subject of Vaccination, we have exposed, at pretty full length, some of the low and disgusting arts, by which the opponents of the practice continue to impose upon the credulity of the lower classes. If our language has been strong, and our censures

have been severe, it must be remembered, that we have been pleading the cause of humanity; that we have truth on our side; that our opponents have, in more instances than one, been convicted of wilful and deliberate misrepresentation. To the obloquy which they have drawn down upon their own heads, by their intemperate conduct, we consign them—confident that all their efforts to impede the progress of reason will be unavailing, and that a future generation will look back with pity on a class of men, who have been so unremitting in their endeavours to counteract the beneficial tendency of the Jennerian discovery, and to prevent the extirpation of a pestilence from which such wide-spreading mischiefs arise,

———"Unde derivata clades
In patriam populumque fluxit."

The importance of Medical Jurisprudence, as a branch of professional study, has been fully proved by the trial of Mr. Angus, and the subsequent controversy to which it has given rise. It appears not a little extraordinary, that in a country where the office of *coroner* is held, and in our opinion justly held, to be one of great responsibility and importance, no attempt should have been made to reduce to system the rules which are to guide his decisions; and that, as far as we know, it is not even deemed necessary that the person discharging this solemn trust, should be at all acquainted with medicine. This is particularly to be regretted, if we consider the prejudices and the erroneous notions, which are diffused among the mass of the people, on medical subjects, and of which men of the soundest understanding and strongest sense cannot entirely divest themselves.

That the reflections of Baglivi, in the passage above quoted, may be considered as very descriptive of the state of medical literature of the preceding year, will be evident, when we mention, that of all the sixty-seven books reviewed in our first chapter, there are scarcely any two on which we can bestow decided and unqualified praise, as being the productions of men of sober observation and of sound practical views. At the head of our list, however, we have no hesitation in placing the work of Dr. Willan, to whose industry we are indebted for the most accurate and scientific description of the

Diseases of the Skin which has ever appeared in any language;—a description which has been drawn not so much from the works of his predecessors, as from long personal experience, and which bids fair to dispel that obscurity which has hitherto involved this intricate department of our art, and to reduce to certainty a most important branch of practice.—The Reports of Dr. Bardsley, also, present us with the results of his observations on various disorders; and, though some of his views may seem to require confirmation, we must give credit to the author for the discernment which he has evinced in his inquiries, and for the unassuming manner in which he has detailed his experience.—Calculated, as the innovating practice recommended in Mr. Watt's Cases of Diabetes is, to stagger both theorists and practitioners, we have deemed it prudent, in some measure to suspend our opinion, till it shall be ascertained by further trials, whether the author's judgment of disease may not have been warped by preconceived hypothesis, and whether the mode of treatment which he has described, as so completely successful in a complaint hitherto esteemed almost incurable, be really deserving of general adoption. In the mean time, we are happy to call the attention of our readers to his book, as the work of a writer who possesses considerable talents for observation, and who evidently thinks for himself.—From Dr. Badham we have received some account of those inflammatory affections of the mucous membrane of the *bronchiæ*, which had been but imperfectly noticed by former authors. Every attempt to extend our knowledge, and render more accurate our views, of pneumonic diseases, must be regarded as meritorious; and we therefore feel grateful to Dr. Badham for the information which he has conveyed, though we are far from considering his labours to be so very original as he himself imagines.—Many of the suggestions contained in Dr. Cheyne's Essay on Hydrocephalus will be found worthy of notice: enlarged experience and more matured views of the disorder will probably enable him to correct some notions concerning it, which he seems to have adopted without sufficient examination.—Although the new edition of Mr. Haslam's Observations on Insanity has disappointed our hopes and expectations, we still cannot help regarding it as a work of con-

siderable merit. By banishing from the history of madness a great deal of the false metaphysics with which it was encumbered, he has rendered an essential service to medical science. The doctrines which he has substituted in their stead, are not, indeed, always very just, nor his reasonings much distinguished by their logical precision: but his errors are of easy detection, and his observations have served to refute several erroneous ideas, that, before his time, were very generally entertained on the subject of mania. His hints respecting experiments on the diet of insane patients, which are at present very deficient, we think entitled to the consideration of practitioners.

Of the publications of Dr. Uwins, Dr. Jackson, and Mr. Russell, we are induced to make particular mention, as serving to shew, in the clearest manner, the pernicious effects of the abuse of language, and the great influence which words possess, in directing the operations of the human mind. We have seen one of the above-mentioned writers (Dr. Jackson) toiling through hundreds of pages, obscuring what was before clear, and perplexing what was before simple—imagining, that he was introducing science into the art because he was employing high-sounding terms, and that the palm of victory was his due, because he had succeeded in expressing the doctrines of his antagonist in an almost unintelligible jargon. We have seen in what manner the two remaining authors (Dr. Uwins and Mr. Russell) have been deceived by an improper use of words, and have delivered to the world, as profound truths, the most obvious truisms, and the most trivial remarks; confirming the observation of Bacon —" Credunt homines rationem suam verbis imperare; sed fit etiam ut verba vim suam super intellectum retorqueant et reflectant."

This species of error we shall neglect no opportunity of exposing, convinced, as we are, of its powerful effects in retarding the advancement of science, and of its baneful influence on the general state of human affairs. In medicine it is particularly desirable, that the terms we employ should be precise, and that the ideas they express should be accurately defined. To what are we to refer the great majority of the disputes which have in different ages distracted the medical world, but to the abuse of words? To what are we to re-

fer the uncertain character of the art itself, but to the imperfections of the language which it employs? "S'il y a des sciences peu exactes," says M. de Condillac, "ce n'est pas parce qu'on n'y parle pas algebre, c'est parce que les langues en sont mal faites, qu'on ne s'en apperçoit pas, ou que si l'on s'en doute, on les refait plus mal encore. Faut-il s'étonner qu'on ne sache pas raisonner, quand la langue des sciences n'est qu'un jargon composé de beaucoup trop de mots, dont les uns sont des mots vulgaires, qui n'ont pas de sens determiné, et les autres des mots étrangers et barbares qu'on entend mal? Toutes les sciences seroient exactes, si nous savions parler la langue de chacun."—Improve the language of medicine, and the most opposite sects will coalesce; the inconsistencies of the art will disappear; its rules will become more precise, and its practice will assume a more systematic form.

In our remarks on the progress of Surgery and Chemistry, we shall deviate somewhat from the plan, which we have followed in the preceding view, and extend our retrospect farther than the past year, confining ourselves, however, to such subjects as still occupy, more or less, the public attention.

An attempt has lately been made to form a classification of tumours, according to their anatomical structure, and to name the different species by epithets drawn from this source. But we cannot allow any great merit to an arrangement, when the species included under it can only be recognised on dissection, even if they could be clearly discerned, which we believe is far from being the case in the present instance. Mr. Burns of Glasgow, and Mr. Hey of Leeds, have made a more substantial addition to our knowledge on this subject, by describing a kind of swelling hitherto unnoticed. It is called spongoid inflammation by the former, and fungus hæmatodes by the latter of these authors; and consists, at first, of an indolent and elastic tumour, slow in its progress, and increasing to a considerable size. The integuments ulcerate, and a copious bleeding fungus shoots out. The swelling is composed of a soft greasy-looking substance, resembling that of the brain, and contained in cells, which bleed from their surface on its removal. The neighbouring

muscles are affected to a considerable extent, losing their natural redness, and characteristic fibrous appearance, and assuming a brown colour, or becoming soft and pale. Bones in the vicinity of the tumour are rendered rough and carious, and even appear as if broken. It may occur spontaneously, or from accidental violence. Removal in a very early stage, offers the only chance of cure; and, in many cases, the affection has re-appeared, although all apparently diseased parts had been freely cut away. The disorder sometimes extends to the neighbouring lymphatic glands. How far the subject of tumours has been elucidated by Mr. J. Bell's quarto volume, will be understood from our review of that book.

In the metropolis, and in the large towns of the kingdom, affections of the eye have been consigned, of late years, chiefly to the care of occulists; and these gentlemen, by their exclusive practice in this department, have gained such a superiority in the manual skill necessary for the delicate operations performed on the eye, as to have taken these cases entirely out of the hands of the regular surgeon. The separation will probably be rendered complete by the recent establishment of two charitable institutions for diseases of the eye only, under the care of professed occulists. We cannot doubt that the patients received into these houses will be more dexterously operated on, than in the general hospitals; though it is still questionable whether the interests of the public at large will be benefited by the arrangement. Diseases of the eye, however, are still, in many places, under the care of surgeons: and hence it becomes important that students should have an opportunity of seeing such cases, and learning the mode of performing the necessary operations. This instruction was formerly derived from general hospitals, but that source is now cut off; the new institutions receiving those patients who used to apply to hospitals. The evil can only be remedied by rendering the practice of these institutions accessible to students for purposes of instruction. Instead of this, however, the proceedings are completely private, and we are informed that there is the greatest difficulty in obtaining a sight of the operations. What would be said, if students were not permitted to see the practice of hospitals? Surely the subscribers, who support the new institutions, will not allow an

arrangement to be continued, by which the utility of their charitable exertions is so much circumscribed. We trust, also, that the professional man will impart to the public that information, which such vast practical opportunities must necessarily afford. Much has lately been written on the subject of the complaints alluded to. Scarpa has given us a very valuable practical work on the diseases of the eye. Mr. Hey has defended the operation of couching in a very satisfactory manner; and the same side of the question has been supported by Mr. Samuel Cooper. Mr. Wardrop of Edinburgh has greatly relieved many cases of violent ophthalmia by puncturing the cornea for the discharge of the aqueous humour. An alarming affection of the eye, which has spread to a great extent in the army, with the loss of sight in many cases, and is supposed to have been brought from Egypt, has been described by two or three different authors, whose opinions are considered in our review of their publications.

Additional light has been thrown on the subject of aneurism. The vague and hypothetical notions that have generally prevailed concerning hæmorrhage, and the natural and artificial methods of arresting it, have been dissipated by the experimental inquiry of Dr. Jones. The safety of applying a ligature to the external iliac artery has been fully established. A case of femoral aneurism occurred in the York Hospital at Chelsea, where the tumour was placed so high in the limb that an operation was not deemed advisable. The sac sloughed, and a spontaneous cure followed. The operation has been performed twice at Birmingham; and has been repeated with complete success, within the last month, at St. Bartholomew's Hospital. The carotid artery has also been successfully operated on. A complete treatise on aneurisms, which we have fully reviewed, has appeared from the pen of the celebrated Scarpa.

Much new information has been given to the public concerning the anatomy of hernia, and the mode of executing some parts of the operation. The Icones Herniarum of Camper, edited by Sœmmering, represent the principal facts relating to the bubonocele in the bold and expressive style peculiar to that great anatomist. Mr. Astley Cooper, of Guy's hospital, whose continued zeal for the improve-

ment of his profession deserves our warmest commendation, has published a large number of plates on the anatomy of hernia, which, in their execution, form a most unfortunate contrast with those of Camper. Yet, although utterly destitute of taste and elegance in drawing and engraving, Mr. C.'s plates represent many new facts. The coverings of the hernial sac, the precise mode in which the upper or internal opening of the ring is formed, and the anatomy of that variety of hernia, which comes directly through the tendinous opening of the external oblique muscle, are fully explained in this work. Besides a minute and accurate description of the crural arch and neighbouring parts, both in their healthy state and in the case of rupture, Mr. Cooper has delineated a very remarkable and peculiar covering of the femoral hernial sac, under the name of *fascia propria*. The information on the subject of hernia in general, has been collected into one view in the treatise of Mr. Lawrence.

If we mention the attempts at reviving the operation of lithotomy by means of the knife, in an account of the progress of surgery, it must imply that the course of the art, in respect to this operation, had been previously retrograde. A history of the practices adopted in lithotomy would by no means redound to the honour of surgery. In order to extract a stone from the bladder, it is necessary to cut through about two inches in depth of soft parts; and the space in which the incision must necessarily be made, is very confined. Yet there probably have not been much fewer than a hundred instruments of various forms invented for the purpose of making this cut: a sure proof, to our minds, that the true principles of operating were not kept in view. Had surgeons employed half the time in dissecting the parts, which they consumed in devising their complicated instruments, they would have been able to accomplish every purpose with the knife only. But, although we deem it perfectly clear, that the scalpel is the best instrument for cutting into the bladder, in the hands of a man who knows his ground, we doubt the propriety of recommending its general use, when we reflect, that not more than one out of twenty country surgeons, and perhaps not a much greater proportion of their London brethren, does possess a

sufficient anatomical knowledge for the purpose. Under these circumstances, the gorget, with all its imperfections, may be the *least dangerous* instrument. Mr. J. Bell has published a quarto volume on the subject of lithotomy, in which he points out the objections to the gorget, and strongly recommends the knife. Mr. Allan has since given us a quarto with the same subject; and Dr. Thomson has republished the original accounts of the operations of Cheselden and Le Dran, adding a new proposal of his own for a particular method of using the knife. The quarter from which these works proceed, does not possess that reputation for operative skill, nor have their authors those practical opportunities, which would be necessary to command our confidence on a question that requires, like the present, to be decided by the test of experience. This deficiency, however, is supplied by some operators of the first celebrity in London, who have laid aside the gorget for the knife, but have not yet communicated the result of their practice to the public.

AMONG the general doctrines of Chemistry, there were none which seemed to be supported by a stronger body of facts, and which we were in the habit of regarding as more intimately connected with the fundamental parts of the science, than those which respected the elective attractions. The view of the subject, which was originally taken by Bergmann, still continued to be embraced without hesitation, and nearly in the form in which he left it; those who had more lately turned their attention to this part of the science, having employed themselves merely in extending and perfecting the system of which he had drawn so admirable an outline. A very considerable change has, however, been induced in the minds of most of those on whose judgments we should be disposed to rely in questions of this nature, by the late researches of M. Berthollet, who has taken a new view of the subject, and who has exercised upon it a very uncommon degree of sagacity and penetration. It is generally admitted, that his doctrines, even if we do not embrace them in their fullest extent, are so far just, as to render it necessary for us to introduce some important modifications into the hypothesis

of Bergmann, and it is at present an interesting object to ascertain to what extent these modifications are to be admitted.

One of the fundamental principles of the old system was, that, by the operation of elective attractions, two substances were made to combine together in precise and determinate proportions,—a principle which M. Berthollet has endeavoured, and undoubtedly with much ingenuity and apparent probability, to controvert. He admits, that bodies generally unite in definite quantities, but these quantities depend not upon any tendency in the nature of the bodies, or in the affinities which operate upon them, to form these particular combinations, but upon the incidental circumstances of gravity, volatility, cohesion, elasticity, &c. which belong to the new compounds when they are produced. To this, as well as to some other parts of his doctrine, M. Berthollet has found a most acute and able opponent in Mr. Dalton, who in his ' New System of Chemical Philosophy," has undertaken to defend the old opinion, and to carry it to a degree of minuteness, that was not contemplated even by Bergmann himself. So far from supposing, that bodies unite to each other in indeterminate proportions, Mr. Dalton conceives, that each particle of the one body must unite individually to each particle of the other; or, if the number of particles in the one exceed those in the other, it must be by some multiple of the particles which exist in the smallest quantity. In Mr. Dalton's work, the hypothesis is advanced generally, as one that accords with observed phenomena, without much attempt being made to establish it by a reference to particular facts. It has, however, received powerful support from the two papers of Dr. Thomson and Dr. Woollaston, to which we have referred in our account of the Philosophical Transactions; the former of whom found, that the different salts into which the oxalic acid entered as a constituent, were always formed of portions of the ingredients that were in an exact ratio to each other; while Dr. Woollaston observed the same circumstance to take place, but even in a more remarkable manner, with respect to some other combinations of acids and alcalies.

In giving an account of the additions that have been made to chemical theory, we must not omit to mention the principle that has

been lately developed by Mr. Davy, which he has so successfully applied to the decomposition of some substances which had previously resisted all the attempts that had been made to separate their component parts. Of the experiments we have already given some account, and it now only remains to notice the hypothesis that gave rise to them. Electricians had long ago established it as a general principle, that bodies similarly electrified repel each other, and that they are attracted when affected by contrary electricities. This principle, Mr. Davy suggests, may afford a solution of the operation of chemical affinity, by supposing that bodies attract or repel each other in consequence of the state of electricity in which they are respectively found. He establishes his position by a number of experiments on bodies which possess the strongest chemical affinity for each other; and, as far as the experiments were capable of accuracy, it was found to be a matter of fact, that they exhibited different states of electricity. This principle opened a grand field for discovery, by pointing out the galvanic apparatus as a most powerful instrument for effecting the decomposition of bodies, by presenting, to both the ingredients, substances in a state of electricity contrary to their own, and thus counteracting the affinity by which they were united. The two ends of the voltaic pile being in opposite states of electricity, and their energy being capable of receiving an indefinite increase, it is at once evident, that we are in possession of a power by which the most intimate combinations may be dissolved, such as no operation of chemical affinity could possibly overcome. The ingenuity which Mr. Davy has exercised in the application of this power, is no less remarkable than his sagacity in the detection of the principle by which it is regulated. How far all the effects of chemical affinity can be ultimately referred to the agency of electricity, is a question which we are not yet competent to decide. Mr. Davy is disposed to generalize the operation of the electrical energy, and to extend it to all cases of chemical combination. Experiment alone can determine this point, and we may confidently expect, that in the hands of Mr. Davy it will receive that illustration which has so generally been the result of his researches.

Mr. Dalton, who is no less distinguished for the boldness and ori-

ginality of his opinions, than for the simplicity of the means which he has employed for the establishment of their truth, has entered into some curious speculations on the constitution of bodies. Some of his doctrines, particularly those which refer to the action of mixed elastic fluids, have been some time before the public: in his late publication he has considerably extended his former ideas, while he endeavours to repel the objections that have been urged against them, and brings forward new arguments in their favour. His general principle, that, in a mixture of two gaseous bodies, the particles of each gas are repulsive only to those of the same kind with itself, and that they do not act upon each other, seems undoubtedly to afford an easy solution of the question, why gases of different specific gravities do not separate and arrange themselves according to their respective gravities. We must also confess, that the only other plausible hypothesis to account for the uniform state of the atmosphere, viz. that its component parts are retained in a state of chemical combination, is one which it is not easy to prove by direct experiment. On the other hand, it may be remarked, that Mr. Dalton's opinion is only an hypothesis, which is formed for the purpose of accounting for observed phenomena, and that from its accordance with the phenomena it derives the principal part of its support. There are scarcely any direct arguments urged in its favour; and Mr. Dalton's own experiments, as far as they go, seem adverse to it. There are many well known occurrences in which carbonic acid gas, in consequence of its superior gravity, remains below the other gases, when they are in contact; and if we consider the great mobility of the particles of aeriform fluids, we perhaps ought not to expect the effect depending upon their specific gravity to be apparent, except where those gases are concerned that differ the most from each other in this respect. Upon the whole, we regard the question as one which requires farther elucidation: neither of the hypotheses can be considered as established, and there are some circumstances in each that are not easily reconcileable to the assumed data. The ideas which Mr. Dalton has thrown out in his last publication, respecting the nature of the ultimate particles of which bodies are composed, and the manner in which they are united to each

other, involve a very wide field for speculation and discussion. They are at present given in so concise a form, that we are scarcely able to comprehend their full extent and bearing; but we may expect, that he will display his accustomed sagacity in the prosecution of a subject, which must throw light upon some of the most intricate, and, at the same time, important parts of chemical science.

A considerable part of the above-mentioned treatise is on the subject of caloric, and it contains many curious observations and some interesting facts, of which it will be proper to give a brief detail. He enters into an examination of the question, whether in the mercurial thermometer equal degrees of expansion denote equal increments of heat. The determination of this point is obviously of the first importance, and it had previously been made the subject of inquiry, particularly by Deluc, who, in consequence of the effects which he found to result from mixing together equal portions of water at different temperatures, was induced to conclude, that the scale, as it is now formed, does not indicate the real increase or substraction of caloric. Mr. Dalton has been led to adopt the same opinion with Deluc, and conceives, that, as we advance higher in the scale of temperature, the expansion of the mercury becomes more considerable, by the addition of the same quantity of heat: and he determines, that the law of this progressive increase is as the square of the temperature from the freezing point of the fluid employed. By correcting the mercurial scale according to this hypothesis of a progressive increase in its expansion, some facts respecting temperature, which were before anomalous, are now found to be reducible to general principles. Besides the one which is mentioned above, he finds that the force of steam from all pure liquids forms a geometrical progression, corresponding to increments of heat, which are in arithmetical progression; that the expansion of permanently elastic fluids appears to be in a geometrical progression from equal increments of heat; and that, in the cooling of bodies, a geometrical progression is observed to take place in equal increments of time. These coincidences certainly tend much to establish Mr. Dalton's hypothesis. He has also paid considerable attention to the effects that must be produced upon the mercury by the expansion of the glass in which it is contained; this

he supposes to be so considerable, that, if the glass had not possessed the property of expansion, the mercury, when at the temperature of boiling water, would rise 41 degrees higher than at present.

Mr. Dalton then makes some remarks upon the specific heats of bodies. He dissents from the opinion entertained by Crawford and Irvine, that the capacity of bodies remains permanent as long as the body retains the same form; he supposes, on the contrary, that the capacity increases with the temperature. After remarking, that gases differ from solids and fluids, in being equally expanded by heat, he proceeds to inquire by what law the affection of gases for caloric is regulated, which he determines to be the following; that the absolute quantity of heat, belonging to the ultimate particles of all elastic fluids, must be the same under the same pressure and temperature. We must remark, that there appear to us to be some inconsistencies resulting from the adoption of this principle; for instance, it follows, that there should be least specific heat in the lightest gases, whereas it is admitted by Mr. Dalton himself, that hydrogen gas has the greatest specific heat. But although we may differ from the author on this point, we are very ready to acknowledge, that his volume contains much interesting matter, and displays an unusual depth of thought and originality of conception.

Having thus pointed out the principal additions that have been lately made to the general doctrines of chemistry, it remains for us to notice some of the most important experiments and discoveries that have been made on particular subjects. Among those which have been considered as elementary bodies, carbon has been the object of particular attention, and we are indebted to Messrs. Allen and Pepys for some valuable researches respecting it. They have ascertained with great accuracy the weight of charcoal which is produced from different kinds of wood, the increase which it experiences by exposure to the air, the specific gravity of carbonic acid, the phenomena which take place when oxygen gas is converted into carbonic acid gas, the composition of charcoal, and that of the diamond. Among the most important of their conclusions are the following; that Lavoisier's estimate of the composition of carbonic acid is nearly correct; that the diamond is pure carbon, containing no hydrogen

that well-burnt charcoal likewise contains no hydrogen; that charcoal is not an oxide of carbon; and that the diamond and pure charcoal do not differ from each other in their chemical constitution, but solely in the state of aggregation of their particles.

Among the late chemical discoveries, one of those that is likely to prove the most immediately applicable to purposes of utility, is that of the luminous nature of the gas which is produced by distilling coal. It appears to have been originally observed by Mr. Murdoch, but for some time was not much attended to: more lately, however, it has been made the subject of numerous experiments, both in a scientific and œconomical point of view. Dr. Henry has bestowed considerable pains upon the analysis of it, and has pointed out its different properties as produced from different species of coal. It appears to be a compound of several aeriform fluids, containing sulphurated hydrogen, carbonic cid, and olefiant gas, but consisting principally of an inflammable gas, formed by a peculiar combination of hydrogen and carbon.

The nature of the peculiar gaseous body, which was originally discovered by Dr. Priestley, and which has been generally designated by the name of oxide of carbon, has been the subject of experiment by several eminent chemists, both in this country and on the continent: but its chemical constitution still remains a controverted point. Soon after its discovery, its properties were examined by Mr. Cruikshank, who concluded that it was a compound of carbon and oxygen; and the same idea was adopted by the French chemists, M M. Guyton, Desormes, and Clement: but M. Berthollet, who has more lately investigated its nature and properties, supposes, that it contains hydrogen, and he applies to it the name of oxycarburetted hydrogen. Notwithstanding the great authority which must attach to the opinion of this latter philosopher on every question of chemical science, it must be confessed, that it seems difficult to detect any inaccuracy in Mr. Cruikshank's analysis; and, accordingly, it is the one which is generally regarded as being correct.

In our review of the Philosophical Transactions, we have given an account of Mr. Davy's discoveries respecting the alcalies and the earths, from which we learn that these bodies, which were before con-

sidered as elementary, are in reality each of them compounds of oxygen and a peculiar metal. The number of metals becomes, of course, considerably increased, and it has also received an addition from the accurate analysis that has been made of crude platina. The dexterity of Mr. Tennant and Dr. Woollaston has detected in it no less than 4 new metals, besides 5 of those which were before known; so that what was formerly regarded as pure platina, contains no less than 10 different metallic bodies. MM. Fourcroy, Vauquelin, and Descotils, were employed in examining this substance at the same time with the English chemists, and arrived at some of the same conclusions; but the experiments of Mr. Tennant and Dr. Woollaston were both prior to those of the French, and also carried to a greater extent. When speaking of the earths, we must not omit to notice the well-conducted experiments that were performed by Sir James Hall, on the effect that is produced by exposing substances to a high temperature, while under the influence of strong pressure. One of his most interesting conclusions is, that the carbonated earths may in this way be fused, without their carbonic acid being disengaged, and that the carbonic acid, by acting on the earth, considerably increases its fusibility. These experiments must have considerable influence upon the geological speculations that are agitated with so much warmth, particularly those which respect the operation of caloric in moulding the constituents of our globe into its present form. We may in general observe, that the science of mineralogy is now cultivated in this country with unusual assiduity; our chemists are daily becoming more expert in the art of analysis, and already bid fair to equal or excel their continental rivals, in the only department of chemical science in which these can be regarded as superior to them.

Before we quit this part of the subject, we are naturally led to recur to the valuable additions, which various parts of chemistry have derived from the experiments of the Spanish philosopher, Proust. He has particularly attached himself to the examination of the metallic oxides and salts, and the combinations which are formed between the metals and the different inflammable bodies. His discoveries are too multifarious to be enumerated here; but we may observe con-

cerning them, that they display much sagacity, and much elaborate research; on some points they lead to inferences, which are in opposition to M. Berthollet's opinions concerning the composition of bodies, and, in our estimation, form a strong objection to particular parts of his hypothesis.

The principal additions which have been made to vegetable chemistry are derived from the experiments of Mr. Hatchett, who, in a series of very interesting memoirs, has pointed out the means of converting a number of vegetable bodies into a substance very nearly resembling tannin. Animal chemistry is also much indebted to Mr. Hatchett's researches into the nature of the different membranous substances; and an attempt has been made by Dr. Bostock to improve the analysis of animal fluids, which promises to throw light upon a subject that had been before but little attended to.

In closing this review of the present state of chemistry, we cannot but advert to a circumstance, which we apprehend must have been noticed by our readers, that, with a few exceptions, the discoveries and improvements which we have enumerated are all due to our countrymen. The political state of Europe no doubt renders it difficult for us to obtain information respecting the progress of science on the continent, but we believe that we are justified in the assertion, that for the last few years the relative superiority of the French chemists can no longer be maintained. The English are now equally expert in performing experiments, and equally profound in their deductions from them, while in their apparatus they are probably superior. In speaking of the present state of chemical science in this country, we may justly boast of the excellence of our publications; the Systems of Chemistry that have been compiled by Dr. Thomson and Mr. Murray, and the Dictionary of the Messrs. Aikin, contain a body of well arranged facts and hypotheses, that are not to be found in any other language.

PART III.

REPORT OF THE STATE OF HEALTH AND DISEASE, IN LONDON, DURING THE YEAR 1808.

IN comparing the catalogue of diseases, and the extent of the ravages occasioned by them, as exhibited in the Bills of Mortality, and the writings of physicians of our own times, with those contained in the Bills of the seventeenth century, and in the works of Sydenham, Morton, and Willis, to whom we are indebted for the first accurate and comprehensive accounts of the prevailing diseases of London, we are naturally struck with the great diminution of the fatality, and with the total disappearance of some of the most formidable of human maladies, and the comparative rarity of others, in our present annual Bills. While the metropolis has extended itself in all directions, and multiplied its inhabitants to an enormous amount, *i. e.* while the apparent causes of its unhealthiness have been augmented, it has actually become more favourable to health. In the year 1697, for example, the total mortality of London was 20,970;* whereas the total mortality of 1797 amounted only to 17,014: and when we take into consideration the great increase of the population of the Out-parishes at the latter period, the comparative healthiness of London will appear in very strong colours. But the healthy condition of the metropolis seems to have been more particularly produced within the last fifty years,† during which

* See the Bills of Mortality.

† Willan, Reports on the Diseases in London, p. 331.

period it has most rapidly increased in extent and population. Until nearly the middle of the eighteenth century, the mortality kept pace, in some measure, with the advancing population: the average number of deaths annually, from the year 1720 to 1730, was 27,492; and the average number from the latter year to 1740 was 26,492; but so late as the year 1746 the annual number of deaths was 28,157.* In the past year, 1808, the total mortality amounts only to 19,954, which is an increase above the deaths of the preceding year of 1620.†

The other point, to which we have alluded, as particularly worthy of remark, relates to the catalogue of the diseases, that were prevalent in the age of Willis and Sydenham. Some of the most formidable and fatal of these maladies are now become altogether extinct, or they are rarely seen, and so much mitigated in severity, as to claim no place in the bills of mortality. At the head of these stands the Plague, of which the above-mentioned physicians witnessed the last instance in England, in 1665. Within the century preceding this plague, four dreadful visitations of the same calamity had occurred to the inhabitants of London, namely, in the years 1593, 1603, 1625, and 1636: and, besides these examples of extensive epidemic pestilence, the limited appearance of the disease is fre-

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* 'The annual mortality,' Dr. Heberden observes, 'appears, by the parish clerks' returns, to have increased from the beginning of the (eighteenth) century to the year 1720; to have been at its greatest height from 1720 to 1750; and from that time to have gradually decreased.' See *Observations on the Increase and Decrease of different Diseases*, by W. Heberden, jun. 1801, p. 30.

† See the Bill subjoined to this Report. It must always be recollected, that the great parishes of Marybone and Pancras, in which the largest additions have been made to the buildings of London, have never been included in the bills of mortality; nevertheless, it is sufficient to view the increase of the Out-parishes, now amounting to twenty-three, exclusive of ten parishes in Westminster, all comprehended in the bills, to be satisfied that the comparative inferences, above deduced, are not materially affected by such omission.

quently noticed in the bills of mortality within the same period: in fact, there are few annual bills within that period, in which some instances of death from the plague are not enumerated, and in the two preceding centuries pestilence was still more frequent. Next to the plague, malignant and spotted, remittent and intermittent, fevers frequently prevailed to a great and fatal extent, especially in the autumnal season. The spotted fevers are stated to have been often the forerunners of the plague. With respect to intermittents, Dr. Short remarks, that, early in the seventeenth century, viz. between 1629 and 1636, "one of 40 of the whole that died of fevers, died of agues;" whereas "now (1750) scarce one of 1,100 that die of fevers, die of this" disease.* And Burnet, in his History of the Reformation, says, that in the last year of Queen Mary's reign "intermitting fevers were so universal and contagious, that they raged like a plague."† Both Sydenham and Morton have left us ample evidence of the frequent occurrence of remittent fevers, which the latter affirms to have been extremely destructive for several years before the great plague, viz. from the year 1658 to 1664. He states, that Oliver Cromwell died of this fever in 1658; and that his own father, who was himself an experienced physician, also died of it; and his whole family, including himself, were infected.‡ Even so late as from 1720 to 1729, according to Dr. Short, "they (intermittents) and remittents afflicted the whole nation grievously."‖ Sometimes together, and sometimes alternating, with those autumnal fevers, the Dysentery was a frequent epidemic during the times to which we allude, and was often attended with considerable fatality.

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* See New Observations, Natural, Moral, &c. on Bills of Mortality, 1750, p. 208.

† Quoted by Dr. Heberden, *loc cit.*

‡ Morton, Pyretologia, Append. ad Exercit. II. 'Insuper, postquam conspexeram matrem meam pientissimam, fratres, et sorores, servos, ancillas, nutrices conductitias, quotquot erant intra eosdem nobiscum parietes, ac fere omnes ejusdem, ac vicinorum pagorum incolas hoc veneno infectos et decumbentes,' &c.

‖ Loc citat. p. 208.

The connexion of the Dysentery with the remittent fever, was remarked by the physicians, as well as by the people, and was supposed to be the endemic of the season "turned in upon the bowels:"* in the bills of mortality it was sometimes called "the plague in the guts."† For five and twenty years successively, from 1667 to 1692, the bills of mortality shew the sum of deaths under the titles of "bloody flux" and "griping in the guts," which must both be considered as dysentery, to have amounted every year to 2,000. (Heberden).

Among the chronic diseases of the periods alluded to, which are almost unknown, or no longer fatal, in the metropolis, are the Rickets, once a most prevailing and mortal disease, and the Scurvy. The rickets, although occasionally occurring at present, among the children of the poor, has no longer a place in the bills of mortality, as a cause of death: it is said to have originated in the west of England about the year 1540;‡ but is first noticed in the bills of London in the year 1634,‖ when the total number of deaths, under this head, were only 14. It appears, however, to have increased rapidly, but irregularly; for, in 1649, the deaths from rickets amounted to 190;—in 1650, to 260;—in the following year, to 329;—and in 1660, 521 persons died of the disease; at the commencement of the eighteenth century, (A. D. 1700), the mortality from this disorder was 393; and it has since been on the decrease, as we find the number of deaths in the year 1750 to be only 21, and at the end of the

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* See Sydenham Obs. Med. sec. i. cap. ii. p. 45. (Edit. Lugd. 1726) 'Et sane *Dysenteria* de qua agitur, ipsissima illa febris est, hoc tantum discrimine, quod introvertatur, et in intestina se exonerans per eadem viam sibi faciat.' Compare sec. iv. cap. iii. p. 182, also Morton. Pyretol. exercit. i. cap. iv. The connexion of these diseases with one another, when epidemic, was likewise observed by Sir Clifton Winteringham, at York; see his *Commentarius Nosologicus*, Ann. 1722.

† See Major Graunt's Natural and Political Obs. on the Bills of Mortality, p. 114, Edit. 5th.

‡ Sauvages Nosol. Method. class x. gen. 18.

‖ Graunt, *loc. cit.* p. 34.

century (1799) the deaths from "evil and rickets" conjoined do not exceed 7.

With regard to the scurvy, although two deaths under that title are recorded in the bill of the past year, we believe, with Dr. Heberden, that the disease, properly so called, is "now unknown in London:" but many authorities might be quoted, and several are adduced by the writer just mentioned, in proof of the frequency of its occurrence in the seventeenth century, and earlier. Willis, who wrote expressly upon this subject, gives an ample description of its characteristic symptoms, and remarks, that it is "ægritudo multis in locis endemia, et ubique fere sporadica."* And Hentzner, in his travels at the time of Queen Elizabeth, observes, that the English "are often molested with the scurvy." Dr. Claremont, a physician of Lorraine, who practised in England about the time of Willis, has this observation: "Ad scorbutum quod attinet, maxime in Anglia grassatur."†—And in still more decided terms, he says, "Sed omnium morborum longe funestissima est pulmonum tabes, et totius corporis fœda miserabilisque corruptio, cui *Scorbuto* nomen fecere." Inasmuch as this observation, however, respecting the extreme fatality of scurvy, applies to London, the bills of mortality completely disprove its truth, although this elegant and intelligent writer appears to have been, on the whole, an accurate observer: for the twenty bills, namely, from the year 1657 to 1677, give an average of 60 deaths every year, under the head of scurvy; and since the beginning of the eighteenth century the annual number has scarcely exceeded 5 or 6. With respect to this article, indeed, Dr. Heberden remarks, that the bills of mortality are confessedly liable to great inaccuracy: but it is most probable, we apprehend, that the inaccuracy would consist in exaggerating the number of scorbutic diseases, and not in under-rating it. For among many other errors of our ancestors, which Dr. Claremont detected, we find him animadverting on the indiscriminate application of the terms *consumptive* and

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* Tractat. de Scorbuto, cap. i.

† Claromontius, de Aëre, Locis, et Aquis Terræ Angliæ, p. 44.

scorbutic to every person who is heard to cough, and is seen pale and short-breathed.* Accordingly, we find no less an author than Morton asserting his belief that *chlorosis* is a species of scurvy.† We need not wonder, therefore, that a more obscure writer, in a treatise entitled " Scelera Aquarum,"‡ relating to the " London, Parisian, and Amsterdam *Scorbute,*" should consider *rickets* and scurvy as the same disease, differing only in its seat, being in the legs in the former, and in the mouth in the latter: or that Maynwaringe should denominate the scurvy " morbus polymorphæus," and speak of " scorbutic consumptions, scorbutic pox, scorbutic dropsies, fevers, palsies, gouts, convulsions, asthmas," &c.‖ But the more accurate Sydenham has justly condemned this confusion of language; and, although he does not deny the occurrence of scurvy in these northern climates, yet he asserts, that it is much more rare than it is vulgarly believed to be, and that almost all valetudinary conditions of the body, which have not yet assumed any decided type, as well as the chronic remains of other diseases, are confounded under that title.§ It is certain, therefore, that whether we refer to the bills of

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* Loc. cit. p. 44. ' Quanquam in eo maxime errare mihi videtur vulgus medicorum, quod non satis accuratè morbos discernunt, statimque ut aliquem aut extussientem audiverint, aut anhelantem subpallidumque conspexerint, statim *consumptivum*, aut *scorbuticum* pronunciant.'

† Pyretologia, *prolegom.* p. 30. ' Idem dictum sit de *Scorbuto* et *Chlorosi* (quam ego jamdiu speciem esse scorbuti particularem existimavi),' &c.

‡ Published in 1701. See p. 17, &c.

‖ A Treatise of the Scurvy, p. 24, edit. 4th, 1672. He agrees also withRiverius in considering hypochond riasis as a scorbutic affection; p. 16.

§ ' Qui quidem (scil. dolores rheumatici) minus cautis nullo negotio imponunt, et pro *Scorbuti* symptomatis vulgo habentur. Hic enim obiter, sed et libere tamen dicam, quod, licet nullus dubito, quin *Scorbutus* in his plagis Borealibus revera inveniatur, tamen eum morbum non tam frequentem, quam fert vulgi opinio, occurrere persuasum mihi habeo; multos autem ex iis adfectibus (ne plurimos dicam quorum nomine) *Scorbutum* incusamus, vel morborum *fientium*, nondum vero *factorum*, quique nullum adhuc certum induerunt typum, effecta esse; vel etiam infelices *reliquias* morbi alicu-

mortality, or to the writings of medical men, in regard to the disease in question, we obtain no satisfactory evidence as to the comparative extent of the prevalence of scurvy in the seventeenth century, in London. It is probable, however, that it actually occurred to a considerable extent, since we know, from unquestionable authority, that it was formerly endemic in particular situations and circumstances, as in cold and damp climates, in our fleets, under their former management, and the use of certain substances in diet, &c. and that under the modern system of life, it has decreased in spite of climate and cold, and has almost disappeared from among our seamen, of which Dr. Heberden has stated some evidence.

Such being the facts, it is extremely interesting to the medical inquirer, to trace the obvious circumstances in the condition of this great city, and in the changes of the mode of life of its inhabitants, which have given rise to that great degree of health and longevity, to which our ancestors were strangers, and that freedom from some of the most fatal scourges of the human race, with which they were at intervals afflicted, and it may not be irrelevant to our object to pursue the inquiry briefly, as a preface to our Report. The great comparative healthiness of London at present, notwithstanding the great augmentation of its buildings and population, within the bills of mortality, is not less manifest from a view of the annual births and burials, than of the diseases, as just stated. Even during the greater part of the eighteenth century, the metropolis was a great vortex, in which several thousands of emigrants from the country annually perished; for the number of deaths, in general, greatly exceeded the number of births. Thus, the average excess of the deaths above the births, in the first ten years of the century, (according to the table drawn up by Dr. Heberden), is 5738; the annual average of the excess in the second decade, is 6798; in the 4th, 9662; the actual number both of births and deaths being then considerably increased: but in the last ten years of the century, the average excess

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jus nondum penitus devicti,' &c. Sect. vi. cap. 5. See also Sect. i. cap. 4. p. 67, edit. Lugd. 1727.

of the burials above the births is only 926. In the year 1808, the number of deaths exceeded that of the births by only 48. It is evident, therefore, that the comparative mortality in London is greatly diminished within the last half century; a fact which might, indeed, have been inferred from the statement already made, of the decrease of the absolute mortality, notwithstanding the extraordinary increase of the population.

It will be easy, we apprehend, to shew, in the first place, that the circumstances, to which the diseases and mortality of the seventeenth century were attributed, by the writers of those times, were not the real source of the mischief; and, secondly, that others, which were then almost entirely overlooked, were in reality the efficient causes of all the prevailing maladies.

The coldness and vicissitudes of weather, and the humid and thick air, which were ascribed partly to our insular situation, and partly to the extensive use of sea-coal as fuel, are the chief circumstances to which writers have referred the origin of so much disease. Now, with respect to the first point, although we may question the truth of the opinion, that our climate has of late years become more ungenial,* we have no reason to believe that our seasons have become milder, or are in any way improved. With respect to the inclemency of our spring, we may quote Claremont, who wrote in 1652. "Ac mihi nunc ista mense Maio scribenti," he says, "videntur brumales dies; usque adeo denso et caliginoso aëre circumfundor;"† an observation applicable to the same month for several years back. And we shall presently attempt to shew, that the sickliness of the autumnal season did not arise from the difference in the season itself, but of the circumstances of the metropolis at the period alluded to.

The contamination of the atmosphere of London by the smoke from coal fires, appears to have been generally considered, both by natives and foreigners, as a leading cause of the unhealthiness of the town. "I am inclined to believe," says Major Graunt, "that

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* See our Review of Robertson on the Properties of the Atmosphere.

† Loc. cit. p. 18.

London now (1662) is more unhealthful than heretofore; partly for that it is more populous, but *chiefly* because I have heard, that sixty years ago few sea-coals were burnt in London, which are now universally used. For I have heard, that Newcastle is more unhealthful than other places, and that many people cannot at all endure the smoak of London, not only for its unpleasantness, but for the suffocations which it causes."* Mr. Evelyn, who published a pamphlet, entitled "*Fumifugium*," in the year 1661, exclaims very feelingly upon this subject, "that this glorious and ancient city, which from wood might be rendered brick, and (like another Rome) from brick made stone and marble; which commands the proud ocean to the Indies, and reaches to the farthest Antipodes, should wrap her stately head in clouds of smoak and sulphur, so full of stink and darkness, I deplore with just indignation." And he states a curious fact, respecting the temporary disuse of coals as influencing vegetable life, from which its effects on animal life are to be inferred.† In refutation of these notions, however, it is sufficient to observe, that the supposed effects have ceased, while the cause has been augmented to an incalculable degree. And a similar observation will serve to refute an opinion, generally advanced by foreigners in particular, that most of the diseases of England are to be ascribed to the use of animal food, and malt-liquors, especially taken to repletion, as was then the custom in this country, if we credit their report.‡

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* Loc. cit. p. 95.

† In the year 1644, when Newcastle was besieged, and coals not to be procured in London, he affirms, that "divers gardens and orchards, planted in the very heart of London, (as in particular my Lord Marquisse of Hertford's, in the Strand, and my Lord Bridgewater's, and some others, about Barbican), were observed to bear such plentiful and infinite quantities of fruits, as they never produced the like, either before or since, to their great astonishment." Quoted in *Noorthouck's Hist. of London.*

‡ It is matter of curious remark, at what an early period the English had obtained the character of being greater eaters than their neighbours. We not only find Claremont speaking of the "cibi crassi ac fæculentæ turbida-

But the real sources of the unhealthiness of London, at the period when Willis and Sydenham wrote, eluded the observation of those sagacious inquirers, and remained for developement by the gradual experience of a more enlightened and scientific age; although, perhaps, that experience has been, in a great measure, the unforeseen result of the necessities of increasing commerce, and of the contrivances of increasing wealth and civilization. This subject may be illustrated by a reference to the condition of an army in camp. The diseases, by which London, in common with all large towns, was almost constantly infested, during and previous to the 17th century, were, as we have seen, the plague, malignant, intermittent, and remittent fevers, and dysentery. Now these very diseases, according to the concurring testimony of all military physicians, are the regular endemics of camps, especially in the autumnal season, if they continue for a short time stationary, or are situated on damp or swampy ground. These diseases are obviously occasioned by the miasmata arising from a soil naturally wet, or rendered so by the accumulating filth of an army, such as the urine and excrements, the remains of victuals, the water used in cookery or in washing, &c. which is necessarily impregnated with animal and vegetable matter, and from all of which, those morbific effluvia arise, in consequence of the putrefaction and more ready evaporation produced by the heats of autumn. This is not now a matter of speculation; for experience has amply proved, that by draining a small marsh, by removing a camp even a few hundred yards from the station which it previously occupied, by burying the excrements, and forming proper receptacles under ground for the urine, the water employed for culinary and

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que potiones" of our ancestors, in the seventeenth century, and asserting that this diet was " non tam qualitate quam copia et quantitate insalubre," and that *repletion* was, in his opinion, the cause of all the diseases of the English; (see pp. 49, 51, 53;) but so early as the latter end of the fifteenth century, that opinion existed abroad. For Cogan, in his " Haven of Health," published in 1605, quotes Hadrianus Barlandus; who, in a dialogue between an innkeeper and a traveller, speaks of a rich and copious repast, as being " after the English fashion." See his prefatory address " to the gentle reader."

other purposes, the remnants of victuals, &c. those endemic diseases have been removed, or altogether avoided.*

Now a large town is but an extensive camp, so constructed as to be destitute of the means of changing its situation, and therefore liable to be infested with the same diseases, as are endemic in camps, unless the precautions just alluded to be fully adopted. Hence the necessity for the construction of privies, drains, and common sewers, and the advantages of a flowing stream, by which all impurities may be carried off, as well as of an abundant supply of water, for the purposes of cleanliness, and of a hard and regular pavement, preserved in a cleanly condition by proper scavengers, &c. in every crowded town. Wherever these precautions are neglected, intermittent and remittent fevers, and dysentery, will not fail to appear, especially in or after wet and hot seasons:† for, in the wet seasons, collections of filth accumulate, and, in great heats, they more readily putrify and evaporate. Dr. Hunter expresses a strong suspicion, that the fatal endemic fever of Philadelphia, in 1793, was the result of neglect with regard to those precautions, as well as the subsequent endemics of New York.‡

It will not, however, be difficult, we apprehend, to prove, from documents in our possession, that those precautions of cleanliness, which alone are adequate to the removal of the sources of the miasms, that excite endemic diseases, were not sufficiently attended to in London, before the great fire in 1666, nor till upwards of half a century subsequent to that calamitous, though ultimately beneficial event. And, what is not less convincing, as a proof of the pernicious consequences of such inattention, we shall find the health of the inhabitants improving, *pari passu*, and exactly in proportion as these causes of their unhealthiness were removed, while the damps and clouds of spring returned as heretofore, and the rains and heats of autumn continued.

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* Obs. on the Diseases of the Army in Jamaica, by Dr. John Hunter. Appendix, 3d edit.

† Obs. on the Diseases of the Army, by Sir John Pringle, Part II. chap. i.

‡ Dr. Hunter, *loc. cit.*

The accumulation of filth and moisture in the streets, especially the narrow ones, for a considerable period after the great fire, was aided by various circumstances; bad and ill-repaired pavements, obstruction to the free current of air, water from the spouts, the habit of throwing all the refuse of victuals, &c. into the streets, of feeding animals, such as goats, hogs, and poultry, in them,* &c. Noorthouck† affirms, that no considerable reformation had taken place in the pavement, since the fire of London, when the improvements were commenced about 50 years ago in Westminster. "The high streets had indeed flat pavements on each side for foot passengers, but these were very negligently repaired. Projecting spouts in narrow old streets still poured their collected rain from the roofs of the houses, impetuously upon the dripping passengers;‡ while in all the streets, large sign-boards hung across by irons fixed to the fronts of the houses,‖ which, in proportion to the abilities of shopkeepers, were carried to extravagant degrees of ostentation, and not only obstructed the view, but also the free circulation of the air: grating the ear with most discordant creaking, as they swung to and fro in windy weather. The middle of the streets were paved with large pebbles, of all sizes and shapes, rough to the horse and uneasy

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* These facts are proved by the nature of the royal orders, issued after the great fire, forbidding the continuance of such nuisances. See Maitland's *History of London.*

† *History of London.*

‡ This source of damp was general previously to the fire, as we are told by Evelyn, who, in continuation of the lamentation, before quoted, says, "That the buildings should be composed of such a congestion of mishapen and extravagant houses, that the streets should be so narrow and incommodious, in the very centre and busiest places of intercourse; that there should be so ill and uneasie a form of paving under foot, so troublesome and malicious a disposure of the spouts and gutters, are particulars worthy of reproof and reformation; because it is hereby rendered a labyrinth in its principal passages, and *a continual wet day after the storm is over.*"

‖ Previous to the fire, these signs hung from beams carried entirely across the street; but, by order of the king, they were directed to be "fixed against the balconies, or some other convenient part of the house," when the city was rebuilding.

to the rider, which, continually worn by carriages into dangerous holes, the mud lay in too great quantities to suffer the streets to be called clean, except in extreme dry weather, when the dust was as troublesome as the dirt, while wet." Many of the narrower streets continued altogether unpaved, until after the occurrence of the fire; the sewers, at the same time, were in a very neglected state, and the drains all ran above ground.* And although the water of the Thames had been partially conveyed to the city, so early as 1582, by a machine erected in one of the arches of London bridge, by a German engineer, and that important acquisition the New River, had been brought to the metropolis in 1613; yet the supply of that great necessary of life, which is now conveyed into every house, continued to be but scantily obtained for many years subsequent to those periods. But if in these general and external circumstances, the metropolis was in a condition to generate the miasmata, which, whether in camps or towns, are the exciting causes of endemic diseases; the internal economy of the dwellings was calculated at once to give efficiency to those causes, and to aggravate the diseases which they produced. Indeed, when we compare the domestic habits of our ancestors, with those of our contemporaries, and consider their respective notions in regard to the importance of cleanliness, ventilation, and the close or open situation of their houses,† we can no longer be surprised, that the former suffered almost constantly from some endemic or epidemic disease, and that in the 14th, 15th, and 16th centuries, (to say nothing of the 17th,) few years elapsed, without the occurrence of a considerable pestilence. Erasmus, in a letter to the physician of Cardinal Wolsey, ascribes the Sweating Sickness, and the frequent plagues with which the English were infested, to the slovenly habits of the people, and their filthiness both

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* Stated by Dr. Heberden from Maitland's History.

† Hume remarks, that " we may form a notion of the mean way of living in the 16th century from one circumstance: a man, of no less rank than the Comptroller to Edward VI.'s household, paid only *thirty shillings* a year for his house in *Channel Row*; yet labour and provisions, and consequently houses, were only about a third below the present price." *Hist. of England.*

without doors and within. "The floors," he says, "are commonly of clay, strewed with rushes, which are occasionally renewed, but underneath lies unmolested an ancient collection of beer, grease, fragments of fish, spittle, the excrements of dogs and cats, and every thing that is nasty."* In what a comparative condition of filth (if a degree of comparison lower than this can now be conceived) must the poor have lived in those times;—the poor, who now occupy, in separate apartments, the very houses in the courts and alleys of London, which were formerly inhabited by the rich; even by the Comptrollers of the King's household!

After the contemplation of such facts, not a doubt can remain, it is presumed, of the existence of those causes, which the experience of physicians, in camps and hospitals, in ships and prisons, has proved to be adequate to the production, and actually to accompany or precede the appearance of the acute diseases in question, viz. the plague,† the various forms of malignant, intermittent, and remittent

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* Hume, *loc. cit.*—Millar *On the Prevailing Diseases of Britain.*—Dr. Heberden states, from Hentzner, that even the floor of the presence-chamber of Queen Elizabeth, in Greenwich palace, "was covered with hay, after the English fashion."

† Dr. Heberden has collected the most ample and satisfactory evidence of the connexion of the plague, and of the malignant contagious fever, which generally precedes and accompanies it, (if indeed they be not modifications of the same disease,) with the filth of crowded, ill-constructed, large cities, in all ages and countries: upon that subject, therefore, we shall content ourselves with referring to his work. It has always originated and maintained its "head quarters" in the filthiest parts of those cities; as in St. Giles's, in London, in 1665, and in Whitechapel, in 1626 and 1636: and in those cities of Europe, which, from natural or political causes, have been backward in adopting the improvements of modern times; the picture of former manners is not exhibited in more lively colours, than that of former diseases. The plague visited Denmark in 1764; it raged at Moscow in 1771; and at Cracow still later. The last-mentioned town, Mr. Wraxall says, "was not wholly paved till within the last two years; and nothing can be so execrable as the present paving, which scarcely deserves the name. There is not a single lamp in the place. No precautions are used to cleanse the

fevers, and dysentery; and, still farther, to aggravate other epidemic disorders, such as small-pox, measles, scarlet fever, &c., and even to render virulent and contagious, those febrile diseases which are naturally destitute of malignancy.

The gradual and happy amelioration of the health of the metropolis, which has been synchronous with the changes of the circumstances above described, (and this not only here, but in every large town in Europe,) amounts to a demonstration of the truth of the preceding observations.* The plague, which was not yet subdued, when the fire, that laid the city in ashes, commenced its ravages, appeared no more, after the rise of the more commodious city, which soon occupied its site; but the intermittent and remittent fevers, and the dysentery, continued to recur, sometimes to a considerable extent, during half a century. It was not until the year 1762, that the light of a rational knowledge, upon the subject of the public health, which had dawned from the time of the rebuilding of the city, shone forth among the inhabitants of Westminster, who then set the example of reform, with the sanction of parliament; and were followed by those of the city in the adoption of similar measures, in 1766. Fleet ditch was then first covered in; the streets were paved with large squared stones; the ranges of posts, which took up the space of a line of passengers on each side, were removed; the signs, gates, and bars, were taken down, and a free ventilation admitted; the sewers and drains were improved; openings were made in the incommodious parts of the streets; and cleanliness still farther promoted by the more active employment of scavengers, the increased

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streets; which, of course, become infectious in summer, and almost impassable in winter." For the detail of facts, see Dr. Heberden's "Observations," p. 62 to the end. See also Sir J. Pringle, *loc. cit.* Part III. cap. vii.

* For direct proofs of the efficacy of cleanliness, and ventilation, in preventing and circumscribing the progress of contagious, epidemic, and endemic diseases, we refer to the Writings of Dr. Lind, the Voyages of Captain Cook, and of Lord Anson, the Works of Drs. Haygarth, Ferriar, Currie, and Clarke, the Reports of the different Fever-Institutions of England and Ireland, and those of the Society for Bettering the Condition of the Poor.

supply of water, &c.: which system has been pursued, and is still continued, to the great ornament of the town, as well as to the substantial benefit of its inhabitants. The construction of the houses, too, which have been astonishingly multiplied since that period, being calculated in every way for the promotion of internal ventilation and cleanliness, and the general attention at present paid to these circumstances in domestic economy, add to the causes of the great salubrity of the metropolis during several years past.

With respect to the two chronic diseases, scurvy and rickets, (the former of which has been asserted, and the latter is known, to have been extremely fatal,) we cannot trace them so satisfactorily to the obvious condition of the metropolis, as the acute diseases, already discussed. This remark applies more especially to the rickets, which originated, increased, and declined, under no observable change of circumstances with which it could be connected. But the prevalence of scurvy has been clearly ascertained, in modern times, to concur with some of the causes of the acute diseases before mentioned; viz. impure air, crowded places, and want of cleanliness; particularly if the food be, at the same time, indigestible, or not sufficiently nutritive, the air cold and damp, and if exercise in the open air be avoided, and a regular and sufficient sleep be not enjoyed.* Most of these circumstances, it is evident, existed among the poor inhabit-

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* Our great navigator's name (Capt. Cook) deserves immortality, not less for his rational and successful prevention of diseases, particularly of scurvy, which, before his time, was most destructive to seamen on long voyages, than for his numerous discoveries in geography. See *Lind on the Scurvy.* —See also *An Account of the Attempts to winter in high northern Latitudes,* by Dr. Aikin, in the *Memoirs of the Literary and Philosophical Society of Manchester,* vol. i. in which it is shewn, that all those, who were left in Greenland with a stock of provisions, and who, therefore, confined themselves to their huts, perished with scurvy; while those who were left accidentally, and without the means of subsistence, escaped the disease, and survived, being compelled to go out, in pursuit of food. These facts evince at once the salubrity of exercise and light food, and the pernicious effects of unresisted cold, close apartments, salted food, and inactivity, combined, in exciting scurvy.

ants of London, in the seventeenth century, and probably to an extent sufficient to account for the origin of the scurvy, properly so called, which, as we have already remarked, was not so generally prevalent as the majority of writers of that age have asserted.

Amid the general diminution of mortality, which has gradually accompanied the improvements in the condition of London and in the mode of living, a few diseases may be observed, in perusing of the annual Bills, to have increased in number and fatality. But these appear to be less dependent on the physical, than on the moral and political changes, which the country has undergone; and are to be attributed chiefly to the increase of manufactures, and consequently of the number of sedentary, and otherwise unwholesome occupations;—to the augmentation of the national wealth, and, with it, of luxury and high-feeding;—and to the fluctuations in the conditions of life, attendant on the spirit of commercial speculation. To the first of these sources we may probably, in part, ascribe the regular increase of Consumption, during the last century;—to the second, the more inconsiderable, but scarcely less regular increase of Apoplexy, Palsy, and sudden deaths, as well as of the Gout;—and to the last, the more frequent occurrence of Insanity in its different forms:* and the increase of intemperance and vice, in a large and populous city, doubtless contributes much to the augmentation of all these diseases.

The article Consumption, in the bills of mortality, is probably the most incorrect in the list. Major Graunt stated, above a century

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* Dr. Heberden states the proportion of these three diseases, or rather classes of disease, at the beginning, middle, and end of the eighteenth century, to have been as follows:

	Begin.	Middle.	End.
Consumption	3,000	4,000	5,000
Palsy, Apoplexy, &c.	157	280	300
Lunatic	27	75	70

If we compare the mortality from consumption at those three periods, with the total mortality, we find, that in 1669 the deaths from consumption were to the whole, as 1 to about 6.2
in 1749 — 1——5.5
— 1799 — 1——3.8
and 1808 — 1——3.6

ago, that, under this term, "the old-woman searchers, after the mist of a cup of ale, and the bribe of a two-groat fee," reported those that died of the venereal disease, and other emaciating complaints, as having died of consumption. And there can be no doubt, that as the people in general still denominate every disorder a *decline*, or consumption, in which great debility and emaciation, from any chronic disease whatever, precede death, so the searchers, (who are even now ignorant old women, and are said to take the report of the friends of the deceased, without examination, if a small douceur be given them, and who are unable to discriminate, if they do examine the body,) fall into the same error in giving their report to the clerks.

Hence it cannot be questioned, that the article consumption comprehends a great number of chronic diseases, in addition to those of true phthisis pulmonalis; such as the marasmus, mesenteric affections, the sequelæ of hooping cough, small-pox, and of other acute disorders, in children;—diseases of the viscera, and many cases of diabetes, dysentery, syphilis, &c. in adults. The effects, then, of various employments, and of the intemperance and vices of a great city, in multiplying the diseases, to which the appellation of consumption (or more popularly decline) is applied, must be obvious. Not to mention the various occupations, which directly injure the lungs, and induce and aggravate true phthisis;* the stomach, bowels, and viscera, are disordered by a number of sedentary employments, especially when carried on in confined air, and close situations, which it is unnecessary to instance; by those which expose the persons to great heat, as among the sugar-bakers, &c.; and by those, in which a deleterious substance is used, as by the poison of lead,

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* Dr. Willan states, that "hair-dressers, bakers, masons, bricklayers' labourers, laboratory-men, coal-heavers, and chimney-sweepers, are liable to be affected with obstinate pulmonic diseases; as are also, in an equal degree, the dressers of flax and feathers, and the workmen in the warehouses of leather-sellers. Many persons, thus engaged, struggle with a constant hard cough, until it terminate in consumption; whereas, by a timely removal into purer air, and a suitable regimen, they might soon have been restored to health." *Reports*, p. 301.

among house-painters, plumbers, white-lead manufacturers, glass-cutters, &c. It must not be omitted, however, that the reports of consumption, in other parts of the island, correspond in a great degree with the accounts of its prevalence in London, and therefore tend to render our speculations, relative to its causes and origin, less satisfactory. Even in the south of Devonshire, at Plymouth, as it appears from the statement of Dr. Woollcombe,* consumption is prevalent to an extent scarcely less than in the metropolis, among the poor who apply to the dispensary there.

The Gout, if not a disease of the rich exclusively, seldom or never occurs, however strong hereditary predisposition to it may be, except under circumstances where indolence and what is called good living can be indulged in. It is not a disease of the poor and laborious class of people, and scarcely ever appears at the institutions for medical charity, except in the lazy and pampered butlers and footmen of the wealthy.† Its increase, therefore, necessarily goes hand in hand with the increase of wealth, and its attendant, luxury.

In regard to apoplexy and palsy, the public newspapers afford ample evidence of the connexion of the disease with repletion, in the article of food and drink. Most of the sudden deaths, which are announced, are stated to have followed the enjoyment of a hearty dinner or supper, and a cheerful glass; and the persons, thus seized in the midst of high health, are generally of a gross corporeal habit; which evinces their previous custom of yielding to such indulgencies.

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* See our Review of his Remarks on the Frequency and Fatality of different Diseases, *supra*, p. 37.

† We remember to have heard an observation of Dr. Gregory, of Edinburgh, that, in the course of twenty-three years, he had superintended the treatment of *two thousand* patients, in the clinical wards of the Royal Infirmary there, only *two* of whom had the gout. But this proportion is much too large, if applied to the whole number of patients admitted into that hospital. We know that in some extensive charities in London, not *one* case of gout occurs in *six thousand* patients.

Insanity does not seem to have greatly increased within the last half century. The number of patients, in the public hospitals for the reception of lunatics, continues nearly uniform; and the twenty-five private houses, licensed for the same purpose, in and near London, are said to contain also a tolerably uniform number.* The erection of St. Luke's Hospital may perhaps have diminished the number of deaths, from this disease, recorded in the bills of mortality, which do not commonly include the burials of those who die in hospitals. With respect to the commercial causes of insanity, we shall state, upon the authority of Dr. Willan, that "those of the superior order, whom their friends consign to these mansions of security, are not the victims of disappointed ambition, or of inordinate affections; not dissipated females sunk to ruin by their extravagance, nor men who have lost their all in the whirlpools of St. James's Street: but residents nearer the Royal Exchange; some of them shattered by unhealthy climates, some by overstraining the faculties, both of body and mind, in the acquisition of wealth; some ruined by deceiving, and, perhaps, self-deceived projectors; others by the most daring commercial speculations; and a few, whose understanding has been overset by mistaken views of religion."†

On the whole, then, the causes of the happy decrease of some of the most fatal and epidemic diseases, and the diminution of the fatality of others, as well as the increase of a few disorders, most of them of infinitely less importance to the community, may be in a great measure ascribed to the evident changes in the physical and

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* Dr. Willan states, that the total amount of lunatics confined in these public and private receptacles, is generally about two thousand, six hundred of them being in Bethlem and St. Luke's. p. 327.

† Loc. cit. p. 327.—Mr. Haslam, whose authority must be deemed paramount on this question, states the number of lunatics from this last mentioned cause in a much higher proportion. See our Review of his '*Observations on Madness and Melancholy*,' *supra*, p. 179. We can add our testimony on this point, that most of the cases of insanity, which have occurred among the *poor* and *ignorant*, under our observation, in London, have arisen from this source.

moral condition of the metropolis, during the last two centuries; more particularly to the changes, which it has undergone, from a state of perpetual filth, and nastiness, to the open, airy, well-paved, and comparatively cleanly condition, in which it now is; and to the alterations in our domestic economy, in regard to situation, ventilation, and cleanliness. The first of these changes has contributed to free us from the endemic and epidemic diseases of camps, viz. intermittent and remittent fevers, dysentery, and the plague; and the latter have concurred to banish the contagious diseases of hospitals, jails, and other crowded and close situations, viz. malignant typhous fevers; as well as to lessen the ravages of other contagious diseases, which were formerly most destructively epidemic and fatal, such as the Scarlet-fever, Measles, &c.*

Perhaps we may be allowed to add, that, among the salutary changes, to which the diminution of the fatality of many diseases is justly ascribed, the discoveries and improvements in the sciences connected with medicine, which have greatly extended our knowledge of the human constitution, and consequently augmented the certainty and accuracy of the medical art, are entitled to no mean consideration.

Before we conclude this prefatory sketch, we shall observe, by way of corollary from the preceding remarks, that the comparative health of the different seasons of the year respectively has undergone a very considerable alteration, since the period of the last plague. The seasons themselves, we have every reason to believe, have suffered no material change: the change has taken place in the condition of the ground, and consists in the removal from its surface of those collections of filth, upon which the influence of the seasons (especially the hot ones) chiefly operated, in forming and raising from them those poisonous miasms, from which the endemics

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* The fatal ravages, which the scarlet-fever occasioned throughout Europe, for several successive ages, under a variety of appellations, have been traced with an acute and discriminating eye by Dr. Willan. See his Treatise on *Cutaneous Diseases*, Part III. p. 289—334.

of summer and autumn were wont to originate.* Hence, we doubt not the correctness of the statement of the comparative healthiness of the seasons, in ancient times, and a southern climate, which Celsus has left us. " Igitur saluberrimum ver est; proxime deinde ab hoc, hiems; periculosior æstas; autumnus longe periculosissimus."† This statement accords pretty nearly with the modern influence of the seasons at Montpellier;‡ where the most healthy quarter of the year consists of March, April, and May; the next in salubrity is the winter quarter, December, January, and February;—then June, and July, and November; and the most sickly, the three autumnal months, August, September, and October. In the five months from July to November, inclusive, the mortality equals, or nearly so, that of the other seven. Major Graunt observed, that, in his time, in London, " the unhealthful season is the autumn."‖ It was in that season, especially in the months of August and September, that the plague, remittent fevers, small-pox, &c. were always most prevalent and fatal. But since those important changes, which we have before detailed, were effected, the healthiness and sickliness of the seasons have been almost reversed. Even in the middle of the last century

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* The conjecture of Sydenham, therefore, relative to the origin of these endemics, was not far from the truth: having ascertained, by observation, that they were not the result of any particular sensible changes of the atmosphere, he ascribed them to exhalations from the (bowels, not the surface of the) earth. " Quod cum serio animadverterim, opinari mihi subiit, prout à me alias dictum fuit, Constitutiones mutationem à secreta aliqua, abditaque alteratione in terræ visceribus, atmosphæram omnem pervadente, &c. maxime pendere." See his *Schedula Monit. de nov. feb. ingressu.*

† *De Medicina*, lib. ii. cap. i.—Sir John Pringle observes, that " the ancient maxim that held ' the summer and autumn to be the most sickly seasons,' is not only verified with respect to the warmer climates, but also *to a camp.*" *Dis. of the Army*, p. 75. This forms another point of resemblance between the condition of a camp, and of a city, under the circumstances, which existed in London in the seventeenth century, and earlier.

‡ Quoted from the *Mem. de la Soc. Roy. de Medicine, ann.* 1777 and 1781, by Dr. Heberden. See the next page.

‖ Loc. citat. p. 56.

this alteration had already taken place. For Dr. Short* states the quarters to be most healthy in the following succession: first, the summer, June, July, and August;—second, the autumn, September, October, and November;—third, the winter, December, January, and February; and, lastly, as most sickly, the spring, including March, April, and May. Similar observations have been collected by Dr. Percival,† in respect to Manchester, and seven other towns in the north of England; by Dr. Price,‡ in relation to Edinburgh, Paris, &c.; and by Dr. Currie, as to the seasons of sickliness among the poor of Liverpool.‖ The sickliness of the individual months, beginning with the most *unhealthy*, may be thus compared,

Montpellier.	London.§	York.¶	Liverpool.
August.	January.	January.	March.
September.	March.	March.	April.
October.	February.	December.	January.
November.	May.	February.	October.
July.	November.	April.	May.
December.	December.	June.	December.
January.	September.	May.	November.
February.	October.	October.	February.
June.	April.	August.	June.
April.	August.	November.	September.
March.	June.	September.	July.
May.	July.	July.	August.

From which it will be seen, that March stands near the bottom of the list at Montpellier (saluberrimum ver), and August at the top (longe

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* Observations, &c. p. 166.

† Medical Essays, p. 32.

‡ On Reversionary Payments, vol. ii. p. 271.

‖ Reports on the Effects of Water, &c. vol. i. p. 228, 2d edit.

§ From Dr. Short's Eleventh Table, p. 176, on an average of fifteen years, 1732—1746 inclusive.

¶ According to a Table published by Dr. White, and quoted by Dr. Heberden, p. 49.

periculosissimus); whereas in England, in the eighteenth century, March stands at the top, among the most sickly, and July and August at the bottom, as the most healthy. If we calculate the number of admissions into a large dispensary, in London, upon an average of four years of the present century, from 1805 to 1808 inclusive,* we find that the seasons of the year stand in the following series and proportion; viz. the spring (March, April, and May,) most unhealthy, the average number of patients being 537; the summer (June, July, and August) as next in degree, the admissions being 507; the winter (December, January, and February) nearly the same as the summer, 503½; and the autumn (September, October, and November,) considerably more healthy than the rest, the average admissions being but 458. It must be remarked, however, that a calculation deduced from such a source, necessarily differs widely from the computation of the actual mortality; the patients admitted at a dispensary being often affected with many trifling complaints, at seasons when there is little fatality: we believe, that the physicians to those institutions generally find their duties more fatiguing in the winter and spring months, than in the summer and autumn, although the number of their patients may not be materially different, in consequence of the more acute and dangerous nature of the diseases, in the former months, which confine the patients to their rooms.†

In consequence of the easy reference to a number of meteorological journals, which are published in most of the magazines, as well as in the philosophical transactions, we shall content ourselves

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* As reported by Dr. Bateman, in the *Edinburgh Med. and Surg. Journal*, for those years.

† The preceding observations, in general, are applicable not only to the other great towns of England, but to the country at large, in which similar changes, in the mode of life, in cleanliness, in the removal of the sources of noxious miasmata, by the operations of agriculture, &c. have produced similar alterations in respect to health and disease. See Dr. Percival's *Essays*.

with a general notice of the state of the weather, in London, during the year 1808. The first four months were, on the whole, cold and severe: in January and February, the atmosphere was generally clear, and frosty, but with frequent interruptions by thaws for a short interval, and several tempestuous gales of wind; three or four considerable falls of snow likewise occurred within the same period: March was ushered in with a day or two of mild weather, but the east wind then set in, and continued, with a constant chilly state of temperature, throughout the greater part of April. With the commencement of May a more genial season appeared, and then, for the first time, vegetation began to advance, and the foliage to evolve, the country having hitherto retained its wintry appearance. The great warmth of this month, and the moderate showers, which occurred in the latter part of it, produced a very rapid growth of the vegetable tribes, proportioned to the length of the period during which their excitability (if we may be allowed an hypothetical expression of the fact) had been accumulating. Even in the warmest parts of the month, however, the diurnal vicissitudes of temperature were considerable, amounting occasionally to between 30° and 40° of the thermometer. The summer months, June, July, and August, were, on the whole, moderate in their temperature, and dry; a few days, indeed, of excessive heat occurred in the middle of July, and the heat was considerable for nearly a fortnight; on the 13th, 14th, and 15th, it was almost intolerable, the thermometer ranging on those days from 89° to 94° (Fahrenheit). This interval of extreme heat was terminated by some heavy rains, with thunder; but less of the latter occurred than is usual in warm and dry summers. The autumnal months assumed somewhat of the character of the vernal season; September being unusually chill, and, in the latter part, damp and showery; and October being infested with a considerable continuance of easterly winds, a heavy and cloudy atmosphere, with showers, and occasional slight fogs. November was also rainy throughout; a few frosts occurred in the commencement, accompanied with morning and evening fogs, but the temperature became milder towards the latter part of the month. December was showery, but not cold, until after the middle; a heavy gale, with

an intense frost, and a fall of snow, occurred on the 18th, and the frost was intense, with an interruption of two or three days of thaw and rain, until the end of the year.

Pulmonary diseases have most uniformly prevailed in this country at all periods, varying in number and frequency according to the conditions of the winter and spring, at which seasons they are most predominant. The long continuance of cold weather, in the spring of the past year, contributed to multiply and to prolong the duration of disorders of the lungs to an unusual extent; and even in the month of May, probably in consequence of the great changes of temperature, in different parts of the same day, and of the occasional showers, this class of complaints continued to prevail. From the same causes they were also unusually obstinate, being aggravated by every successive exposure to the chill atmosphere, although verging towards recovery, whenever confinement at home was indulged in. Hence, likewise, they often occurred in combination with other disorders, which originate from the same source: rheumatism, inflammations of the eyes and throat, diarrhœa, slight attacks of dysentery, &c. were the chief of these attendant complaints.

The majority of the pulmonary affections consisted of the common catarrhal cough, with more or less of soreness or slight pain in the chest, and different degrees of feverishness:—and of the more chronic catarrh, or cough with dyspnœa, occurring in older and less sthenic habits, and differing, perhaps, chiefly from the former, in being accompanied with a more languid circulation, and a more copious secretion of thick mucus from the inflamed surface of the bronchial tubes and cells. Few active cases of pneumonic inflammation occurred. In fact, instances of acute pleurisy are comparatively uncommon in London; and we believe, that those practitioners, who regulate their proceedings by observation, and not by routine, are not often induced to resort to the lancet in these diseases.* It will

* It has been supposed that the diseases of our degenerate times are less inflammatory than those of our more hardy ancestors, in the days of Willis

be seen, by a reference to the Bill, that only 17 cases of death from pleurisy, were registered during the last year. In the cure of these common forms of pneumonic affection, the application of blisters (with laxatives and a diluent regimen) appeared to produce the most evident benefit; the operation of the vesicatory, and the relief to the symptoms, especially of the pain and soreness, of the difficulty of distending the lungs, and the hardness of the cough, were too generally connected in point of time, to admit of a doubt of their connexion as cause and effect. We cannot say so much of the internal medicines, commonly employed on these occasions; except, perhaps, of the subsequent good effects of opiates, in removing the irritation of the collecting mucus, and thus procuring rest, and preventing exhaustion; or of the temporary alleviation of mucilages, besmearing the fauces and glottis. In the chronic catarrhs of old people, indeed, the warm expectorants, as they are called, are doubtless beneficial: but do they act in any other way than as moderate general stimulants, or cordials? or is there any peculiar sympathy of the lungs with the state of the stomach or skin, induced by these medicines, which justifies the notion of an *expectorant* operation?

In the latter part of the year, notwithstanding the prevalence of wet weather, catarrhal complaints were by no means numerous. But Rheumatism, which had accompanied them in the spring, continued to occur more frequently than is usual at the end of autumn. From the end of October to the middle of December, it was very rife, and assumed, among others, a painful and troublesome form, attacking the face and gums on one side, and producing swelling, with acute pain and tenderness, which were aggravated in the night. Several patients resorted to the tooth-drawer, under an idea that

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and Sydenham, from the bleeding which they were able to bear. But it is to be recollected, that even Sydenham was, in some measure, under the trammels of the prevailing humoral pathology, which often directed bloodletting, when it only did little harm. And it is remarkable, that Dr. Claremont expresses his surprise that the English bore evacuations of blood so ill. His words are these: "Mihi certe quidem in Anglia medicam artem factitanti sæpe venit in mentem mirari quid causæ esset cur sanguinis evacuationem tam ægrè ferrent Insulares." Loc. cit. p. 70.

the disorder originated in a caries of the teeth, and others empirically plied themselves with fomentations; but the continuance or increase of the pain and swelling compelled them to seek for more efficacious expedients. The remedies, which usually give relief, in the ordinary forms of rheumatism, were generally beneficial; particularly Dover's powder, or opium and antimony combined with calomel, and followed by the exhibition of cinchona. In many instances, however, this, as well as the other modifications of rheumatism, which at that time occurred, were particularly obstinate. The arsenic, which has been recommended, as a cure for chronic rheumatism, by Mr. Jenkinson,* Dr. Bardsley,† Dr. S. Fothergill,‡ and others, did not appear to be successful in these cases, nor indeed in any other, which then occurred: in a word, the circumstances, as we have already stated, under which this remedy has occasionally succeeded in rheumatism, have not yet been ascertained.

Although Dysentery has not appeared, for a considerable time back, to such an extent as to be termed absolutely epidemic,‖ or been so fatal as to be conspicuous in the bills of mortality; it occurs, nevertheless, in a number of individuals, at different periods of the year, but chiefly about the end of autumn, after great heats. This disease prevailed extensively in London, after the long and extremely hot summer of 1800;§ but no appearance of contagion then occur-

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* *Medical and Physical Journal*, for June, 1804.

† In his *Medical Reports* recently published. See our Review of this work, *supra*, p. 14.

‡ See his Account of the Practice at the Westminster Dispensary. *Medical and Physical Journal*, for April and May, 1808.

‖ Perhaps, according to the strict etymology of the word, the dysentery of 1762, so well described by Sir George Baker, and Dr. Akenside, should be so termed, for contagion is not properly, though usually, implied in the term. Using this acceptation, Sir J. Pringle says, "In autumn, 1762, the dysentery, though frequent, could not be called epidemic; it prevailed chiefly among the lower people, and in general was of a benign kind." *Dis. of the Army*, p. 335, *note*.

§ See Dr. Willan's *Reports on the Diseases in London*, p. 290.

red; and the bills of mortality shew no increase of the number of deaths, under the head of "Flux, Gripes," &c. by which terms the dysentery is there designated: it is stated, indeed, by Dr. Willan, that although the symptoms were severe at that time, and the cases numerous, he did not see any instance of its fatality. In the spring of 1808, a considerable number of people were attacked with dysenteric symptoms; in several of whom, the discharges of blood by stool were great and depressing, and the tenesmus severe; in others, frequent small mucous dejections, or sometimes watery evacuations, intermixed with fragments of membranous or cheesy-like matter, without any proper fæculent substance, and without the peculiar odour of fæces. When the rains of autumn commenced, the disease, which had disappeared during the summer, again occurred; but always sporadically, and never, as far as we observed, passing to a second individual by contagion. The instances in which blood was copiously evacuated by stool, were more numerous than in the spring; but we did not observe that the disease in any case terminated unfavourably. Where it is seen early, it generally yields readily to medicines, which combine the quality of freely evacuating the intestines, with that of soothing irritation. For this purpose, calomel, or the sulphat of magnesia, combined with opium, are employed by some practitioners with the best success. The castor oil, as both laxative and demulcent, combined with, or followed by, opium and ipecacuanha, is preferred by others; while some adhere to the use of the latter medicine, as recommended by Sir John Pringle, Dr. Home, &c. namely, administering it in divided doses, so as to insure its *purgative* operation. It cannot be doubted that an unirritating purgation, however produced, if properly repeated, will accomplish the cure of early dysentery; while, notwithstanding the authority of Sydenham,* even mild cases are aggravated, protracted, and often rendered severe and dangerous, by the use of opiates alone. But, on

* See *Schedul. Monitor.* It appears, however, that Sydenham, in this place, speaks only of a particular form of the disease; as he generally urges the necessity of administering purgatives.

the other hand, the fear of administering opiates, until a repetition of cathartics have been resorted to, has appeared to us, in several instances, to prolong the disease, by the continued irritation which they occasion in parts already irritated too much. The necessity of alternating large and repeated doses of opium, with the purgatives, in the dysentery of 1800, is strongly represented by Dr. Willan;* and it occurred to our observation, that in the dysentery of the last year, some occasional temporary failures to give immediate relief, arose from not giving the anodyne in sufficient proportion to the purgative.

Dysentery, it is obvious, does not owe its origin alone to the miasmata, which occasion the remittent fevers; but to what does it owe the malignancy and contagion connected with it in modern camps, and in the old city of London? To its combination with the remittent and continued fevers, which have been observed to concur with it in the situation alluded to?† We know that a contagious fever, with which a local disease in some particular organ is accidentally conjoined, will often transfer that local disease with its other symptoms, as it passes from one individual to another; in this way pulmonary inflammation sometimes spreads by infection, when it has been called *Pneumonia typhodes;* and thus also the erysipelas has been observed to be communicated in the wards of an ill regulated hospital.

The humidity of the autumnal season of 1808, gave rise to a considerable number of intermittent fevers, in the low counties; and many were imported into the metropolis by the people, who had gone down to assist in the work of harvest. These were observed to be extremely obstinate, in a variety of instances, and to assume very anomalous forms; some being without any absolute intermission of the heat or acceleration of the pulse, but marked by quotidian paroxysms of the rigor, or of the sweating, only; others returning at unusual intervals, *e. g.* two quotidian paroxysms, succeeded

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* Loc. cit. p. 294.

† This fact is strongly maintained by Dr. Harty, in a late *Treatise on Dysentery.*

by a tertian fit, alternately: and others again characterized by lingering irregular symptoms of fever, neither assuming a distinctly continued, remittent, or intermittent type. A few cases of regular ague occurred in persons, who had not been out of London for many months, even years; so that however irregular the interval between exposure to the infectious miasms and the commencement of the disease may frequently be, we must believe that it originated, in those cases, in London. This irregularity, just alluded to, was remarkable in the agues of the season: some were seized with the intermittent, while remaining amid the miasmata, and after an exposure of two or three weeks; others remained for some time without experiencing any ill effects, but were seized on their return to town; and some others again, who had spent a short interval in the country, were not seized with the ague until four, five, or six months after their return to London. With respect to the remedies, the cinchona appeared, on the whole, to be most generally successful; but in some of the anomalous cases, in which a complete *apyrexia* did not occur, it seemed to occasion heat and thirst, and to accelerate the pulse: in these cases, the arsenic, combined with a diaphoretic regimen, sometimes produced a speedy removal of the symptoms. There was, in many instances, a considerable degree of debility, with which evacuation, even by moderate purgatives, did not agree.

The three acute diseases, which were most generally prevalent, were the Measles, Scarlet Fever, and Small-pox; from the first and last of which a considerable mortality is recorded in the Bill of the year. The deaths from the small-pox are less than those of the preceding year by 128; but the deaths from measles exceed those of the preceding year by the great proportion of 924. With respect to the scarlet fever, the mortality cannot be ascertained, as it is merged under the general head Fever; but it is remarkable, that, in the weekly bills, the article "Scarlet fever" stands; yet, during the time when it was most prevalent, and certainly occasionally, though not often, fatal, a cypher was always inserted to that article.

The measles were extensively prevalent among children during the winter and spring of 1808, as well as during the autumn; and

the fatality, which was occasioned most commonly by the subsequent pneumonic symptoms, may perhaps be ascribed to the unfavourable weather, which was calculated to induce those symptoms, under the state of predisposition to them which accompanies the measles, and to aggravate them when begun.—Of the scarlet fever, which was very prevalent also among children, throughout the year, we had the satisfaction of not witnessing one fatal instance; but we were informed of the occurrence of a considerable number. The disease, wherever introduced, almost invariably attacked all the children in the family in rapid succession; so that, where they had not been infected from one common source, an interval of not more than three or four days* must have intervened between the time of infection and the commencement of the disease; which is the shortest *latent period* of infection, to use the language of Dr. Haygarth, that we are acquainted with. The eruption sometimes appeared on the evening of the first day of complaint, more commonly on the second morning; and by the end of the week the febrile symptoms had disappeared, and the cuticle was undergoing the process of desquamation. In almost all the cases there was an accompanying sore throat, which, from the enlargement of the tonsils, in a few instances, rather resembled the inflammatory quinsy, than the sore throat of scarlatina. The symptoms were in general favourable; the functions of the sensorium were seldom affected, or the strength much depressed. In many of our little patients nothing was administered, but a dose or two of calomel, as a purgative, in the outset, the free use of the sponge and cold water, (which was preferred to the affusion, because less formidable, and more convenient,) being practised while the cutaneous heat continue great; and the antiphlogistic regimen being adhered to. Where the throat was more particularly inflamed, a blister to the external fauces was applied with the most decided benefit. Adults have most commonly escaped the contagion;

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* Dr. Withering frequently observed the patients begin to complain "on the 3d or 4th day after exposure to contagion." *On Scarlet Fever and Sore Throat*, p. 61. And Dr. Willan says, "the eruption often appears 5 or 6 days after they have been infected." *On Cutaneous Diseases*, p. 254.

but, in some cases, the mother or nurse, who principally attended the sick children, was affected with a sore throat without any eruption, and a very slight general indisposition: in one instance, the father of a family, while convalescent from a catarrhal fever, and confined among his children, was affected in a similar manner.

Every friend to humanity must lament, that the ravages of the Small-pox should still continue to the great extent recorded in the bill of mortality for the year 1808, amounting to a seventeenth part of the whole mortality. And he must lament it the more, when he reflects that these ravages are absolutely not the result of a natural or casual visitation of the disease, but of an artificial pestilence, created by needy adventurers in the *trade* of physic, or factious candidates for medical fame. The poison of small-pox continued to be circulated by inoculation throughout the metropolis, until the middle of the last summer, from the Small-pox Hospital, notwithstanding the animadversions which had been made on that pernicious practice, even in parliament.* At that period, the inoculation of out-patients was interdicted at a meeting of the governors of the Institution; a highly respectable member having declared, that he considered himself as accessary to the murder of those, who died from the contagion of small-pox, while such a dissemination of the contagion was constantly supported by an institution to which he was attached. But the physician of that hospital urged arguments in favour of the continuance of the practice! and he has more lately addressed a singular specimen of reasoning to the directors, with a view to prove that the general mortality by small-pox, in London, was not increased by the annual inoculation of upwards of *four thousand Out-patients*;† because, forsooth, that great mortality continued during the greater part of the year, after such inoculation at the hospital was discontinued!‡ But when the stream of contagion

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* See the *Debates in Parliament respecting the Jennerian Discovery*, published by Mr. C. Murray.

† See the same work, *preface*, p. 12. Considerably more than *four thousand* were inoculated in 1807.

‡ See a recent number of the *Medical and Physical Journal*.

is flowing wide and full, at a season which at all times favours its increase, and is, in fact, the very period of its epidemical range,* what, but a miracle, could suddenly stop its course, even though inoculation had been altogether suspended by individuals, without the walls of the hospital? It is well known, however, that some obscure medicasters, in the neighbourhood of Berwick Street, Little Wind-mill Street, &c. immediately took advantage of the interdiction of the inoculation of out-patients at the Small-pox Hospital, in order to lay their names before the public, in newspaper advertisements, as inoculators of the small-pox, promising every attention to the procuring of a mild sort, and offering gratuitous inoculation to the poor. And we cannot doubt that these offers were acceptable to an extensive class of the people, when we recollect the great impression, which the writings of the antivaccinists had unfortunately made upon the public mind. Not only the epidemic season, then, but a continued inoculation, aided the progress of the contagion, already extensively diffused from the Hospital at St. Pancras:—how much more fatal its progress would have been, had that *fons et origo malorum* likewise been open, it is impossible to determine. The evil, however, has been sufficiently great; for, in the year 1808, *eleven hundred and sixty-nine persons* were destroyed by the small-pox within the Bills of mortality.† Let the inoculators think on this, and count their fees with satisfaction and complacency, if they can.‡

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* All the observers of epidemic diseases agree in stating the summer to be the season of epidemic small-pox. Thus Sydenham: "At vero alii (*scil.* morbi) vere orti, et de die in diem invalescentes, non nisi sub æquinoctium autumnale statum indipiscuntur, quo præterlapso, paulatim cedentes, tandem adventante brumali frigore vertuntur in fugam; hujusmodi sunt Pestis ipsa, et *Variolæ*." *De Morb. Epidem.* sec. i. cap. ii.—Sir Clifton Wintering ham, speaking of the diseases of the year 1726, says, "Hæc æstate apparebant iterum *variolæ*, quæ usque ad hyemem protractæ sunt." *Comment. Nosolog.* Compare Dr. Willan's *Reports*, p. 31, &c.

† The deaths in the Small-pox Hospital, and in the great parishes of Marybone and Pancras, are not included in this number.

‡ It is to be regretted, that the parliamentary measures which were brought

These facts imply the extent to which the opponents of the cow-pox have succeeded in temporarily retarding its progress in the metropolis. Among the lower classes of the people their misrepresentations have so far prevailed, we believe, as to produce an almost universal prejudice against it; and many of the more elevated ranks have shared in their erroneous opinions: so that, although a considerable number, among the latter, have undergone vaccination, and the public institutions for gratuitous inoculation of the cow-pock have not been unemployed, it must be acknowledged, we fear, that the practice in London has been somewhat retrograde during the past year. Several reports of the failures of the preventive powers of vaccination were received from the country, especially from Ringwood, in Hampshire, from Cambridge, and from Putney; to all of which places a deputation of the medical committee of the Jennerian Society was sent, for the purpose of an open and public investigation. These investigations were, in fact, conducted in the most public manner, and the Reports, which the society published, contained most satisfactory results. At Ringwood the deputation examined the cases at a meeting, convened at the town hall, which was attended by several clergymen and members of parliament, together with the surgeons of the place, and Dr. Fowler of Salisbury. To all these persons the result of the inquiry was satisfactory. It appeared that a dreadful epidemic small-pox had begun about the middle of September, and that towards the end of October vaccina-

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forward at the close of the last session, by Mr. Fuller, for the prevention of the inoculation of the small-pox, except under such circumstances of seclusion, as should ensure the public safety, have not been carried into effect, in any shape, during the present session. Surely, a very censureable indifference to the lives of the people is thus manifested in a legislature, which has established a code of quarantine laws; which, in all its regulations in respect to public nuisances, enforces the precept, "sic utere tuo, ut alienum non lædas;" and which, lastly, has acknowledged the efficacy of vaccination, by amply rewarding its benevolent discoverer, and by voting the sum of £3000 per annum for an establishment in its support! See this point strongly illustrated in Mr. Murray's pamphlet. See also our Review of the pamphlets on Vaccination.

tion was introduced. Many of those who were vaccinated, had the small-pox, therefore, at the same time with the cow-pox, from previous infection with the former: and, in others, vaccination did not take effect, and consequently they continued susceptible of the contagion of small-pox. "In various instances," the Reporters remark, "dry cow-pock matter, received from several quarters, was dissolved in water almost boiling, previous to insertion; and it is probable that, on this account, it frequently failed to produce any effect. Above two hundred persons, however, were successfully vaccinated, and have been protected from the small-pox, though much exposed to its infection in different ways." This Report is concurred in by Dr. Fowler, and by the two medical practitioners of Ringwood; and Mr. George Rose, M. P., adds his testimony in its favour.

In the course of last summer, several failures of vaccination were said to have occurred at Cambridge. The deputation from the Jennerian Society proceeded thither, investigated the matter publicly, and the Society published their Report on their return. The small-pox had prevailed extensively and fatally for ten weeks previously; numbers, who had been formerly vaccinated, resisted the contagion; but sixteen cases were said to be suspicious. The Reporters point out several sources of mistake; such as a mere festering of the arm considered as a secure vaccine vesicle; the inoculation, in four cases, by "a bone-setter, who was formerly a grocer," in the manner of a *seton*, with *small-pox* matter, who afterwards came forward, and pretended that he had used the *vaccine* virus, &c. &c. "In this inquiry the deputation of the Royal Jennerian Society were assisted by two eminent surgeons of Cambridge, one of whom had vaccinated *three thousand persons;* and the notes of every case, submitted to their investigation, were read to the parents themselves, or the parties concerned, to prevent the possibility of mistake." The Society, besides, offer to medical men the privilege of inspecting the whole of the original minutes, at their Central House in Salisbury Square.

Another deputation was sent to Putney, in November 1808, where they examined six reported failures, in the presence of the Rev. John

Owen, of Fulham, and with the assistance of three respectable practitioners of the place. Their Report is perfectly satisfactory. In the 1st, 3d, and 5th cases, vaccination had evidently been imperfect, from the imperfection of the cicatrix; and the small-pox, which ensued, was mild, and dried away before the time of maturation: in the 6th case, a local affection only was produced by inoculation, such as would probably ensue in many persons, were they subjected to that experiment, after having had the small-pox itself: and the 2d and 4th "resembled the instances in which vaccination, though not manifestly incorrect, has had only a partial effect on the constitution,—and has therefore been followed by small-pox in that very mitigated form and degree, in which it is divested of its formidable aspect and serious danger;" the eruption, in both, having consisted of small pimples, which dried away on the 5th day.*

We have thought it necessary to detail the substance of these Reports, in order to shew, that, wherever the alleged failures of vaccination are properly examined, the evidence proves invariably favourable to its character. These Reporters justly observe, that, "Rumour, as usual, had greatly multiplied the instances of supposed failures; and prejudice and misrepresentation had availed themselves of the statement, to spread an alarm in the neighbourhood." It is in this way, that designing men have proceeded in retarding the progress of vaccination, by stating, not only the most unsanctioned rumours, but the most absurd and impossible stories, as facts, which the multitude, they knew, were credulous enough to receive. This, however, has not been the sole cause of the impediments to its progress: we are sorry to say, that selfish and personal considerations have prevailed too much, among some of its medical supporters, and that there has been too much juggling for individuals, among some of its general friends, both of which have contributed to the mismanagement and degradation of the cause.†

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* See the *Report of the College of Physicians* on this point. See also our Review of the pamphlets on Vaccination.

† This is not the place to enter fully into an exposition of these matters. We may intimate, however, that, immediately after the publication of Dr.

In the course of the year 1808, as well as in the two preceding years, several cases of that distressing and fatal malady, the Hydrophobia, have occurred in and near London. It is upwards of twenty years since a similar prevalence of the disease was noticed,* so that there were some practitioners who were disposed to question the existence of such a disease, however numerous and minute the descriptions of it in books might be, because it had never fallen under their personal observation.

Four instances of death from the bite of rabid animals are recorded in the Bills of mortality of the past year; one from the bite of a mad cat, and three from the bite of mad dogs. This number, however, is short of the reality, we believe, even within the district of the Bills; and several have occurred beyond the bounds of that

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Jenner's treatise in 1798, a cow-pock institution, now called the Original Vaccine Pock Institution, was established near Golden Square, of which Dr. Jenner was civilly invited to become a *corresponding member!* From that quarter, his just claims to the sole merit of the practice have met with unceasing opposition. Then two or three clamorous individuals stepped forward in defence of the practice, whose violence has been conducive to the injury of the cause. Next, the jobbing appointment of medical officers to the Jennerian Society, the last of whom was dubbed a *doctor*, for that purpose, without any pretensions to medical knowledge, or any approximation to the medical character; and the jobbing formation of an opposition society, for the convenience of the discarded secretary of the former, who stationed himself in the avenue to their central station, in order to intercept the children in their way to it;—and, lastly, the formation of a National Board, which necessarily undermines the Jennerian institution, which consists only of the constituted authorities of the Colleges of Physicians and Surgeons, and of which Dr. Jenner was not allowed to be one (having only a *nominal* appointment of director, which he has declined),—all these are among the unfortunate impediments to the successful progress of vaccination, for which the friends of the practice are responsible. What its enemies have lately done in the way of impediment to it, we have already stated. See our Review of the pamphlets on the subject.

* Several cases of Hydrophobia are recorded in the *Lond. Med. Journal*, edited by Dr. Simmons, for the years 1784 and 5.

district: in all we have heard of upwards of *twelve* cases.* In consequence of the reported frequency of the disease, the College have been desired to collect evidence on the subject, and to report the result to the Secretary of State; their report has been sent in, but it has not been made public, nor has any measure of preventive policy been hitherto founded upon it. The histories of the disease, as detailed by the different practitioners, who had the management of the patients, accord in all the leading points most accurately; in fact, the descriptions, which different individuals seeing one and the same case, would give of its appearances, could scarcely be expected to coincide more nearly: and they agree, also, with those that have been often detailed by other writers on the disease. In every instance a fatal termination has occurred within six days of the commencement of the symptoms, in most cases within four days, and in some within 48 hours. The latent period, *i. e.* the time between the bite and the appearance of the disease, has also been various, as has been generally observed by former writers. In the case at the Middlesex Hospital, three months elapsed between the infliction of the bite, and the occurrence of the symptoms;—in Dr. Pinckard's case, 73 days;—in Dr. Powell's, 31 days;—in the case in Rose Street,† 27 days;—in Mr. Thomson's case,‡ at Kensington, three weeks. Mercurials, antispasmodics, and metallic tonics, (the nitrate of silver by Dr. Powell,) have been prescribed freely, but all have proved equally unsuccessful. The dissections have likewise exhibited

* Dr. Powell and Dr. Pinckard have each printed a case, which they distributed among their professional friends. A case is related in the *Med. and Phys. Journal* for Sept. 1808; and two others in the No. for Nov. One case was attended in the Middlesex Hospital; another in Guy's Hospital; and another, a child, we believe by Dr. Powell, in St. Bartholomew's; the particulars of which have not been printed. Dr. Marcet attended a case in Moorfields, an account of which is printed in a volume of papers, about to be published by the *Med. and Chirurg. Society.*

† See *Med. and Phys. Journal*, for November 1808, p. 481

‡ *Ibid.* p. 396.

tolerably uniform appearances; these have been principally a redness, or inflammatory blush, in different degrees of intensity, in some portion of the space between the pharynx and the cardiac extremity of the stomach, inclusive; but in one or two cases this appearance has not been very manifest. Little or no morbid state of any other organ has been observed. On the whole, therefore, we may be considered as remaining in the most entire ignorance both of the nature of the disease, and of the method of cure, or even of palliating a single symptom. With regard to preventives, the Ormskirk medicine, the cold bath, and the other expedients, which were formerly popular, have been amply proved to be destitute of efficacy; and the only mean of prevention, now relied on, is the excision or destruction by caustic of the bitten part. We observe, however, that the writer of the article, DOG, in Dr. Rees's New Cyclopedia, (we believe Mr. Bracy Clarke,) states, with great confidence, a vegetable preventive, consisting of "the fresh leaves of the tree-box 2 ounces, the fresh leaves of rue 2 ounces, of sage ½ ounce," which are to be thus treated: "Chop these fine, and boil in a pint of water to half a pint; strain carefully, and press out the liquor very firmly; put back the ingredients into a pint of milk, and boil again to half a pint; strain as before; mix both liquors, which forms three doses for a human subject. Double the quantity is proper for a horse or cow. Two thirds of the quantity is sufficient for a large dog, half for a middling sized, and one third for a small dog. Three doses are sufficient, given each subsequent morning fasting; the quantity directed being that which forms these three doses." The writer affirms, that "out of more than 90 animals, horses, sheep, swine, and dogs, one only has gone mad to whom this remedy was administered;" and that "about 40 human persons have taken this remedy (*preventive*,) and in every instance it has succeeded equally as with animals."* Most of the latter had likewise used the caustic or the knife. We know, however, that the disease frequently fails to occur, after the

* See also the *London Medical Review* for December, 1807.

bite of a rabid animal, although no particular precaution is taken;* and that from this cause the Ormskirk, and other inert drugs, have acquired their character of preventives. But in so deplorable a disease every expedient is worthy of trial. We refer our readers to the same article, in the New Cyclopedia, for an account of the symptoms of the disease in dogs; a point on which many popular mistakes exist, and on which, we have been informed by those conversant with the *distemper* of dogs, Dr. Moseley was deceived, in the case which he published in the newspapers, early in 1808. Neither the symptom of *hydrophobia*, nor of *madness*, appears in the rabid dog: he will lap water freely, and is by no means furious, during the disease.

We should here close our Report, but that we cannot omit to mention the non-occurrence of a disease, which was in former times, and has been, even within the last ten years, a serious and fatal calamity among the poor, in the close and crowded parts of London: we mean the Typhus, or common contagious fever. It is true, that, in the Bills of mortality, for 1808, *eleven hundred and sixty-eight* persons are recorded, as having died of fevers of all kinds. This head includes, however, the scarlet fever, and, in all probability, many other inflammatory and painful disorders, of which pyrexia, in the language of Cullen, or febrile irritation, is symptomatic. And it is certain, that, except a very few instances in the autumnal months, and these not of a malignant character, little or no typhoid fever was seen during the year. To hospitals and dispensaries it has been almost unknown; and the house of recovery, instituted for the cure and prevention of that disease alone, has, we are informed,

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* See Dr. Simmons' *Med. Journal* for the year 1784, p. 421, where it is stated, that, "of nine persons bit by the same dog, *one* only was attacked with the hydrophobia; and he neither the first nor the last that was bit, nor the most wounded." We have been informed, that the Committee of the College traced seven persons who were bitten by one rabid dog, four of them on the naked skin (the hand), and three through the clothes; the former four had died of hydrophobia, the latter three had hitherto escaped the disease.

been frequently for some weeks together without a patient in its wards, and the majority of those, which it received, were mild fevers, destitute of any evidence of a contagious origin. In the year 1799, and still more severely in 1800, a malignant Typhus was extensively prevalent; but after that time it rapidly declined, and since the year 1804 has seldom occurred, and never spread far. In the year 1800, the Bills record 2712 deaths, under the head of "Fevers of all kinds," of which it is probable that nearly two thirds were contagious fever, or Typhus. In 1750, the number, under the same head, was 4294.

It is not easy to detect the causes of the facility with which contagion diffuses itself at particular times, while, at others, its malignancy is circumscribed within narrow limits. The state of the atmosphere has been accused; but no sensible condition has been pointed out, with which such varying conditions of disease could be connected; and later observations have demonstrated, that the atmosphere at large is never impregnated with contagion, nor is the medium of its communication, except *near* the persons of the sick. Sydenham conjectured, that vapours from the bowels of the earth might be the pestilential causes. It is probable, however, that a *predisposition* in the human constitution, to be excited into febrile action by contagion, may be occasioned in various ways; and particularly by such causes as produce great debility. Thus, perhaps, we may explain the fact of the ready spreading of an epidemic fever among an army, which has for some time suffered extreme exhaustion and fatigue, or among a people, who are ill supplied with nutritive food; whence war, famine, and pestilence, have been observed to succeed each other, or to occur together, from the earliest periods of history. A season of continued heat appears, also, to predispose the constitution to receive the impressions of contagion; for contagious diseases generally become epidemic in the autumnal period of the year. Want of proper clothing, loss of sleep, breathing in a close and impure air, excessive agitation of mind, long exposure to cold and moisture, filth, &c. may all conspire, in various instances, to induce a state of predisposition to be easily influenced by the operation of contagion; while whatever supports the vigour of the

constitution, may tend to render it more capable of resisting its influence. None of these circumstances, however, can be said to have undergone any material alteration, since the year 1800; except that, from the excessive wetness of the autumn of 1799, a considerable scarcity of provisions prevailed in that year, and much of the grain, which fell to the lot of the poor, would necessarily be bad in its kind.

The Diseases and Casualties in the year 1808.

Abortive and Stillborn	462	Fistula	1
Abscess	49	Flux	10
Aged	1555	French Pox	28
Ague	5	Gout	33
Apoplexy and Suddenly	229	Gravel, Stone, Strangury	18
Asthma and Phthisick	586	Grief	5
Bedridden	3	Headmouldshot, Horshoehead, and Water in the Head	193
Bleeding	28		
Bursten and Rupture	26		
Cancer	54	Jaundice	39
Canker	2	Jaw Locked	2
Chicken-Pox	3	Inflammation	765
Childbed	172	Lethargy	1
Colds	11	Livergrown	14
Colick, Gripes, &c.	19	Lunatic	172
Consumption	5220	Measles	1386
Convulsions	4164	Miscarriage	2
Cough & Hooping Cough	326	Mortification	200
Cow-Pox	1	Palsy	98
Croup	76	Piles	1
Diabetes	2	Pleurisy	17
Dropsy	870	Purples	1
Evil	8	Quinsy	3
Fevers of all kinds	1168	Rheumatism	7

Scurvy	2
Small-Pox	1169
Sore Throat	9
Sores and Ulcers	5
Spasm	15
St. Vitus's Dance	1
Stoppage in the Stomach	12
Teeth	319
Thrush	48
Tumour	1
Worms	3
Bit by a mad Cat	1
Bit by mad Dogs	3
Bruised	1
Burnt	15
Drowned	123
Excessive Drinking	7
Found Dead	17
Fractured	2
Frighted	1
Frozen	2
Killed by Falls and several other Accidents	77
Killed themselves	36
Poisoned	3
Scalded	5
Starved	2
Suffocated	4

Christened	Males	10189	In all 19906.
	Females	9717	
Buried	Males	10228	In all 19954.
	Females	9726	

Whereof have died.

Under Two Years of Age	6075	Fifty and Sixty	1690
Between Two and Five	2466	Sixty and Seventy	1499
Five and Ten	847	Seventy and Eighty	1200
Ten and Twenty	643	Eighty and Ninety	504
Twenty and Thirty	1200	Ninety and a Hundred	65
Thirty and Forty	1792	A Hundred	1
Forty and Fifty	1971	A Hundred and Two	1

Increased in the Burials this Year 1620.

There have been executed in the city of London and county of Surry 5; of which number none have been reported to be buried (as such) within the Bills of Mortality.

PART IV.

MISCELLANEOUS INTELLIGENCE.

ART. I. *Biographical Memoir of Dr. Hawes.*

THE subject of this memoir was born at Islington, in the year 1736, of parents who, from their respectable situation in life, were enabled to give him a liberal education at St. Paul's school. Upon leaving this celebrated institution, he was apprenticed to an eminent apothecary in Lambeth; and, at the expiration of his apprenticeship, passed through the usual routine of medical study, attending the practice at one of our great hospitals, and hearing lectures upon the various subjects connected with his profession. It is creditable to his penetration, that he evinced a decided partiality for the lectures of the late Dr. George Fordyce, whom he diligently attended, even after being established in business as an apothecary. This circumstance took place in the year 1759, when he began to practise in the Strand, and gradually obtained a considerable share of reputation and success; to which, the cheerfulness of his disposition, no less than his integrity and good conduct, materially contributed. Dr. Hawes at no period of his life possessed that solemnity of manner, and gloominess of temper, which sometimes mark the character of practitioners, nor that austerity which is sometimes mistaken for the indication of wisdom. But, however amiable and respectable, a practitioner of medicine, in this large metropolis, is long before he can acquire much notoriety, and, unless circumstances favourable to the display of his talents occur, he may linger in obscurity during the whole of his career: the eminence which he may attain in his immediate neighbourhood, is local, and his fame is confined, as his

exertions are limited to a small compass. Thus Mr. Hawes practised several years as an apothecary, while his merits were recognised by only a small circle of friends; and so true is the adage, "omne ignotum pro magnifico," that it frequently happens, that the applause of strangers first informs a man's personal acquaintance that he possesses superior worth. Mr. Hawes, however, was closely applying himself, in his leisure moments, to those pursuits which were afterwards to secure his reputation and adorn his character. He was also assiduous in cultivating the friendship of eminent men; and, amongst others, became intimate with the celebrated Dr. Goldsmith, when, in the year 1774, an event occurred which at once made him the subject of popular notice. The accomplished writer, whose name we have just mentioned, with a pertinacity which often accompanies genius, in spite of the remonstrances of his friend and apothecary, Mr. Hawes, persisted in taking a large dose of James's powder, with the view of alleviating a severe indisposition. The effect produced, was violent, and certainly accelerated, if it did not actually occasion, his death. Much attention was consequently excited, and some people did not even scruple to accuse Mr. Hawes of improperly treating his patient. In order, therefore, to satisfy the public mind, and at the same time to warn people against the injudicious use of quack medicines, however speciously recommended, Mr. Hawes published "An Account of the late Dr. Goldsmith's illness, so far as relates to the exhibition of James's powders, together with remarks on the use and abuse of powerful medicines in the beginning of acute diseases." This little tract was addressed, by permission, to Mr. Edmund Burke and Sir Joshua Reynolds, who were the executors of Dr. Goldsmith; and, by the good sense, modesty, and humanity, which it displays, forcibly claims our respect for the author. When he found his entreaties unavailing, he thus feelingly exclaims, "I now found myself in a more disagreeable situation than can easily be conceived, by any person whatever, except a brother practitioner: for, with great concern I speak it, the more we endeavour to convince, the more our good intentions are too frequently treated with disregard; and I solemnly declare, that I felt at that time more anguish of mind, than I had done in fifteen years' preceding practice." The

following remarks, also, on the same subject, afford convincing proofs of his firmness in resisting what he conceived to be wrong. "It is not," he observes, "my disposition to be uncandid, nor my wish to injure the circumstances of any man: but whatsoever, in the form of medicine, appears likely to produce a public injury, I am determined to expose. I have made quacks of all denominations my sworn enemies; but what medical man of honour and reputation, would wish to be upon tolerable terms with the murderers of the human race?"

This year was memorable to Mr. Hawes on another account; he distinguished himself by ardently embracing, and carrying into effect, one of the most benevolent projects which ever suggested itself to the mind of man. We allude to the institution of the Humane Society, for which this country is so much indebted to his generous and unwearied exertions. Upon this subject, the philanthropist may dwell with satisfaction; and had Mr. Hawes done nothing else worthy of record, his name would still be venerated by posterity. So long since as the year 1767, a society was instituted in the then flourishing city of Amsterdam, for the recovery of persons apparently dead from drowning. But though, in a city every where intersected with canals, the necessity and advantages of such an institution might be more manifest, the design did not originate with the Dutch, but had, some time before, been successfully adopted and pursued in Switzerland. Dr. John Fothergill, so early as the year 1744, had published on this interesting subject, and in his "Observations on recovering a man dead in appearance," had recommended the very measures which have since restored so many individuals to their desponding friends; and which he had the gratification to see adopted before he closed his useful life.

But it is chiefly to Dr. Cogan, that Great Britain is indebted for the introduction of the benevolent scheme. In 1773, he translated and published the memoirs of the Amsterdam society, which he had brought with him from Holland. Mr. Hawes immediately conceived, that great advantage must result from the institution of a similar society in this country, and with great zeal applied himself to promote the humane undertaking. He began, by publickly offering to

reward those who would give him information of any person being drowned in his immediate neighbourhood, that he might have more frequent opportunities of practising the improved methods of resuscitation, and induce people to pursue the most prompt and judicious means of restoring suspended animation. In the following year, assisted by the powerful exertions of Dr. Cogan, and a few enlightened individuals, he had the satisfaction to realize his utmost wishes, by the establishment of the Royal Humane Society; and, in consequence of his generous efforts, often experienced the delight of seeing

——" The vital glow return,
Reanimate the faded cheek,
Life's feeble spark rekindled burn,
And give what language cannot speak."

In 1776 he again manifested his ardour for the public welfare, by publishing an examination of " Wesley's Primitive Physic." The reputation of this man as a preacher, his general integrity, and humane disposition, the sway which he held over a numerous class of society, all conspired to make whatever proceeded from his pen of consequence. Upon the subject of medicine every one is interested, and the dogmas of uneducated pretenders are estimated according to the boldness with which they are asserted. We are not then to be surprised, that those who imbibe their religious opinions on the mere authority of a man, should also admit his medical axioms with implicit confidence, under the belief that inspiration may unravel the intricacies of physic, as it unfolds the mysteries of theology. It is scarcely necessary to observe, that Wesley's book contained the most ridiculous notions, was replete with ignorance, and calculated to do great mischief, by advising remedies, which were either totally inadequate, or absolutely dangerous. Mr. Hawes's " Examination" passed through several editions, and no doubt contributed to rescue many of the brethren from that destruction, which their worthy pastor might very unwittingly have brought upon them.

In the autumn of 1776, Mr. Hawes commenced a course of lectures on suspended animation. The subject was novel, and well calculated to interest the feelings, and arrest the attention, of a Lon-

don audience. Mr. Hawes delivered them with a degree of warmth and enthusiasm, which convinced his hearers that he was sincere in the cause, which he had espoused and so earnestly recommended. He shewed them how life might be preserved in those critical circumstances where the vital powers were suspended; he considered the deranged action of those essential organs, the brain, the heart, and the lungs; and taught the most effectual means of restoring their interrupted functions. He inquired into the effects of animal, vegetable, and mineral poisons on the human system, and how their baneful consequences, when received into the body, or externally applied, might be counteracted or alleviated. He demonstrated the best mode of recovering persons from syncope, excessive inebriation, suffocation, drowning; the effects of lightning, of noxious vapours, of cold, and of every agent capable of suddenly producing the appearance of death. These lectures were continued for several years, and contributed to diffuse knowledge, on the important subject which they comprehend, throughout Europe. Mr. Hawes also gave a gold and a silver medal, at the close of his lectures, for two dissertations on these interesting questions: "Are there any positive signs of the extinction of human life independent of putrefaction? If so, what are they? Or, if there be not, is putrefaction a certain criterion of death?"

In 1777, he published an "Address to the Public on premature Death, and premature Interment," and, with his usual liberality, distributed seven thousand copies in various parts of the kingdom.—With the humane design of interesting the public in these laudable pursuits, although his fortune was far from being ample, he also offered the reward of one guinea to every nurse or attendant, who, by attention and humanity, had successfully contributed to restore the life of any child or adult.

During this unceasing exercise of his benevolence, Mr. Hawes had the satisfaction of witnessing the Humane Society increase in prosperity. He was chosen Register of it in the year 1778; and two years after, when Dr. Cogan returned to Holland, was employed to arrange and prepare the annual reports. His duties consequently were considerably augmented, and, with a modesty which ever adorns

worth and genius, he expressed great apprehension that the interests of the society would suffer from the loss of his able friend and colleague. But such were the industry and application of Mr. Hawes, that the institution continued to increase in respectability and members; and though its affairs necessarily became more complicated, and demanded more of his time, he still surmounted every obstacle, and exerted an activity in relieving the distressed, which nothing could repay, but the consciousness of the benefits he was conferring on his fellow creatures. He had also to combat the voice of prejudice, which opposed this rising institution, and threatened it in its infancy. There is nothing too absurd for fanaticism to embrace, or bigotry to adopt. The cry of impious presumption was raised against those benevolent men, who dared attempt to restore the dead to life; and where they did not incur the open censure, they met the pity of the mildest of the self-deemed pious. Mr. Hawes was indefatigable in repelling these insinuations, and from his active exertions was regarded as the leader of the society. He was supported by some of the ablest and most virtuous characters of the age; and at length they had the satisfaction of obtaining the sanction of the King, who graciously condescended to become the Patron of the society, and granted to it a plot of ground near the Serpentine River, for the purpose of erecting a receiving house, which is now furnished with every thing necessary for restoring life, and has already been instrumental in rescuing many victims of accident or despair. From the Reports of the society, which Dr. Hawes has published, it appears, that several thousand individuals, most of whom would have inevitably perished, if the means recommended by the society had not been enforced, have been saved to the community. By these humane and unwearied efforts in relieving the various evils which affect the condition of man, Mr. Hawes acquired considerable reputation, whilst he was generally esteemed for his amiable deportment in private life. He was therefore induced to relinquish his practice as an apothecary; and in the year 1781, he obtained a diploma of doctor of medicine; soon after which he was appointed one of the Physicians to the Surrey Dispensary. Upon this occasion his friends were not less gratified by the majority of votes with

which he was favoured, than by the testimonials of his professional skill and honourable character, from distinguished physicians in the metropolis.

In this year, also, Dr. Hawes published "An Address to the King and Parliament of Great Britain, on preserving the lives of the inhabitants, and on regulating the Bills of mortality." This work soon went through three editions; it inculcated many excellent regulations, and exposed the gross errors which are contained in the Bills of mortality. He observed, that "the chief end originally intended by the reports of christenings and burials, was to ascertain the state of population and fatality of diseases. This properly effected, would be an important benefit, and, in the attainment of it, another of equal consequence would be included.—By a strict and judicious examination of those who are absolutely or apparently dead, the concealment of murder would be frequently prevented, and the interment of such as have yet a spark of life remaining in them, would often be obstructed. Thus would the hand of the assassin be checked by the certainty of discovery, and the mistakes of the ignorant corrected by the interference of the wise. Thus would innocence acquire greater security, and the human race be guarded from the unspeakable horrors of premature interment." He then clearly proved, by a distinct examination of each disease enumerated in the bills, their utter inconsistency with truth, and very eloquently concluded by a general exposition of the evils which result from the mode in which they are now drawn up, and the advantage which would accrue from their being conducted on better principles. Some years previous to this, in consequence of the remonstrance of Dr. Fothergill, and some other friends of humanity, this subject was brought before parliament, and a bill was likely to pass, when, unhappily for the interests of society, "the member, who undertook this affair in the House of Commons, insisted on a clause being inserted in the bill, which totally overthrew the design, and was the principal cause of its being rejected by a great majority." The clause was, "for numbering the people of both sexes and all ages, before the act took place." The consequence was, that bigotry prevailed, and the cry of the *Sin of David*, was louder than the

voice of humanity. The *searchers* and the bills of mortality still continue to disgrace the police of this metropolis; though the absurdity of the system now pursued has been exposed, and a more effectual scheme suggested, by various other intelligent physicians, amongst whom the names of Percival, Haygarth, Pulteney, and White, are conspicuous.

Besides the publications which he avowed, Dr. Hawes made frequent anonymous appeals to the public in behalf of the distressed. His time was wholly engrossed by his engagements, and by rising at a very early hour in the morning, he was alone enabled to perform his numerous duties. In addition to the office of Physician to the Surrey, he obtained that of Physician to the London Dispensary, and, on the resignation of Dr. Lettsom, was appointed treasurer of the Humane Society; an office for which he was peculiarly qualified. The delight which he felt in bestowing the rewards which the society adjudged, was strongly expressed in his countenance; and at the anniversary festival, when the individuals, who have been recovered from the semblance of death, walk in solemn procession before the patrons of the society, his happiness seemed to be complete. Such was the sensibility of this benevolent man, that during the sermon which was annually preached in aid of the institution to whose success he had been so instrumental, he was often observed to wipe away the tear which he could not restrain; and such was his charity, that he always contributed to the collection. Though he was secret in relieving the wants of the suffering poor, gratitude would often reveal what he had desired to be concealed; and his disposition to do good being known, the claims upon him were much greater than his fortune could supply; whilst in thus benefiting mankind, he was losing opportunities of deriving emolument from his professional exertions. In his capacity of Physician to the London and Surrey Dispensaries, he had frequent occasion to witness the extremes of wretchedness and misery, known only to those who visit the poor at their own habitations; and where he could not himself afford sufficient pecuniary assistance, which he was always ready to contribute, he made known their wants to the affluent, and thus was enabled to communicate very extensive relief.

Dr. Hawes was below the middle size, and slender in person; his features were prominent, and expressive. Cheerful himself, he was active in promoting mirth and good humour in others. His constitution was delicate, but his habits of temperance, regularity, and early rising, were highly favourable to health, and, together with the benevolence of his disposition, and the usefulness of his pursuits, essentially conduced to that vivacity and good temper which never forsook him. If his talents were moderate, he turned them to the best account; for his application was unremitting, and the eminence which he attained is encouraging to perseverance and industry. His liberality was experienced by many; he was open and unsuspecting; and he proved himself an affectionate father, a kind husband, and a firm friend.

In the course of the last few years, he had suffered two or three severe attacks of disease, from which, however, he quickly recovered, but his friends remarked a general and considerable declension of his powers.—His countenance was less healthy and animated than before, his gait less active, and his step less firm. In the autumn of last year, he felt the gradual approaches of a disease in his bladder, which, though at first unattended with pain, yet subjected him to much inconvenience and disturbance, and ultimately proved both agonizing and mortal. That organ, after losing its retentive power for some weeks, was suddenly attacked on the 6th of November, with a violent inflammatory affection, accompanied with extreme pain, which, in the progress of the disease, recurred in frequent and excruciating paroxysms, together with copious discharges of mucus, occasionally with hæmorrhage, and admixtures of offensive purulent matter and fibrous sloughs, which denoted the most serious morbid changes in its internal structure. The doctor bore the miseries attendant on this distressing malady with more patience and fortitude, than could have been expected in a man not inured to pain, and discovered throughout his affliction the most affectionate and exuberant gratitude for the attentions he received from his family and friends. In truth, he was never so much overcome by his sufferings, as by his emotions and expressions of thankfulness to those around him.

He was professionally attended, with the utmost kindness and assiduity, by Mr. Cline, in whose skill and care he uniformly and deservedly reposed unlimited confidence:—also by a friend, (Mr. Addington,) to whom we are indebted for this account of the doctor's illness; to whom he had for several years confided the care of himself and his family under indisposition; and who, residing near him, had the best opportunity of watching the course and changes of his disorder. Others of his medical acquaintances called upon him occasionally; but the urgency of his sufferings, and the irritable state of his mind, rendered it seldom prudent to admit visitors to his chamber. When it is known that he was under the able direction of Mr. Cline, it will not be doubted that the most efficient remedies were employed to relieve the sufferings and save the life of this distinguished friend of humanity; but the powers of medicine were unequal to stop the progress of so violent a disease,—in an exhausted frame, at the age of 73. Happily, however, his pains were frequently mitigated, and long intervals of relief obtained, by the aid of medicine. Indeed, the hopes of his attendants were encouraged at the end of the second week, by a very manifest abatement of the severity of the disease in his bladder; but a few days afterwards an aphthous efflorescence began to shew itself in the throat, covering first the fauces, and afterwards rapidly diffusing itself over the whole inside of the mouth, the tongue, and even the lips themselves. By this affection, deglutition was first rendered difficult, and afterwards impracticable; and the patient was sustained, partly by nutritious injections per anum, and partly by food conveyed through a tube into the œsophagus. By the same methods, also, medicines were administered, with the hope, if hope it might be called, of combating this last morbid symptom, which now appeared to constitute the principal source and circumstance of danger. But all was unavailing. His strength now sunk apace. His pulse from the beginning continued so calm and undisturbed, as in the very worst of circumstances to afford a ground, if not of hope, at least of presumption, that he might survive the struggle: but this also, now, lost its firmness and regularity; and, for about three days before his decease, the harbingers of approaching dissolution were settling on his coun-

tenance, and discovering themselves in his whole manner. Even yet, however, the activity of his mind had not forsaken him. In every interval of pain he was solicitous to employ himself in some of those concerns which were so near his heart. He had been accustomed about this period of the year to commence his preparations for the yearly report of the Humane Society, to be published at the ensuing anniversary, in the spring: and now, he eagerly embraced every opportunity of arranging his materials for that publication, and took an anxious interest in the proceedings of those meetings of the managers and directors, at which he could no longer assist. Finding, also, that a sermon was to be preached for the benefit of one of the dispensaries which he attended, he would not suffer his absence to occasion the loss of his guinea to the collection. In a word, he was the same kind-hearted, active, benevolent being, to the very last; and when he became sensible of his approaching fate, he resigned himself to it without a murmur. To the latest period he retained his senses; and as the clock was striking six, on the morning of the 6th of Dec. a few minutes before his decease, he noticed some passing occurrence, and soon afterwards directing a look of inexpressible tenderness to one of his children, who was supporting him, he calmly expired in her arms.

He was interred at Islington on Tuesday, Dec. 13.

Art. II. *Proposal for a Dietetic Dispensary.*

A PLAN has recently been suggested by Dr. Herdman for improving dispensaries, and the medical treatment of the poor. In consequence of his remarks, the Society for bettering the condition of the Poor, to which they were addressed, appointed Dr. Garthshore, and Patrick Colquhoun, Esq. "to consider the expediency and practicability of establishing an experimental dispensary in the Metropolis, comprising in its structure a dietetic regimen for debilitated patients." These gentlemen have accordingly drawn up a report, in

which they recommend, that, in addition to the medicines which are usually supplied to the poor at dispensaries, " there ought to be superadded, a certain moderate proportion of *spirits for cordials —strong porter—soups—and also flannel waistcoats, and shifts and shirts.*"—It is calculated, that the expense of an institution, which shall effectually accomplish these objects, will not much exceed the sum at present required for medicines alone; because it is supposed, that, in many instances, the necessity of giving expensive drugs will be prevented by substituting articles of diet at a cheaper rate. If this plan should prove successful, it is expected that other dispensaries in the metropolis will adopt similar measures, and that thus the most extensive relief will be afforded to the suffering poor.

In the present stage of this benevolent undertaking, we reluctantly feel ourselves called upon to express our apprehension, that the principle, on which it is founded, is untenable; and our doubt, that the consequences, which are likely to result from it, will be less beneficial than its supporters anticipate; whilst the difficulties which oppose its execution, if not insurmountable, will prove extremely obstinate. It is stated in the report, that " it requires little investigation to convince the mind, that drugs alone will not restore an enfeebled body to health, where the *cause* of the disease originated in the want of nourishing diet. On the contrary, they are often pernicious, unless accompanied by a dietetic regimen, which is out of the reach of a considerable proportion of those distressed objects, who become patients to the different dispensaries.—There, every medicine is to be found, *but that alone* which in many cases is to effect a cure. Their bodies are wasted, and must be restored by nourishing food. Their recovery depends on this; but it is not attainable—it is not to be found in their miserable dwellings; and the work-house is shut against them—it is already full; and the hospitals are inaccessible." Now, we are free to declare, that though our opportunities of witnessing scenes of wretchedness are very extensive, we have seldom indeed seen this description realized, and have therefore reason to know, that the picture is too highly coloured. But admitting the facts as stated in the report, surely it is expecting too much from charitable institutions to suppose, that they can re-

medy evils, which, if they exist in the degree represented, demonstrate the necessity of adopting very different means, than those which are recommended in the plan under consideration. If poverty and starvation be, indeed, the chief causes of the diseases of the poor, where will be the great advantage or humanity of restoring them to the operation of similar agents? Unless you keep continually supplying them with food, shelter, and raiment, you effect little by affording temporary relief; and where the inhabitants of a country cannot support themselves, they cannot long exist upon casual bounty. From the experience which we have had, we are decidedly of opinion, that the diseases of the poor are rarely occasioned by any want of the necessaries of life: we apprehend no contradiction when we assert, that, in general, the converse of this will hold good, and we are much more frequently called upon to interdict the use of cordials, and of full diet, than to enforce their administration.

The reputation of dispensaries is now established, and they rank high in popular estimation; the description of patients which are relieved by them is respectable, and we fear, that if the proposed plan be adopted, the interests of such institutions will materially suffer. The number of patients requiring dietetic assistance is extremely limited; in the course of many years' public practice, we have not met with a single instance, where, if additional relief was required, it could not be procured with the greatest facility from the friends of the patient, or from charitable people; and we have no hesitation in affirming, that this is generally the case throughout the metropolis. The soup, porter, cordials, &c. are not required by the generality of patients who now are admitted at dispensaries. Many of them, it is true, would have no objection to such comfortable things; and many would apply for the sole purpose of obtaining them: but every one conversant with these things is aware of the difficulty of detecting imposture; the task of the physician would be rendered irksome in the extreme, and at a time when he would naturally take leave of his patient, his attendance would be required to prescribe the daily allowance of soup and porter.

We have offered these few remarks in the hope of arresting the attention of those persons who are concerned in promoting this

plan, and of inducing them to reconsider their scheme. The funds of several of the dispensaries already established, are not sufficient to enable them to effect all the benefit which they were intended to produce, and which experience proves that they may produce: now the proposed alteration must necessarily increase their expenditure, and render their existence still more precarious. According to their present constitution, they are calculated and intended to relieve persons who have homes, and means of living: in this respect they differ from hospitals. Those patients, then, who are not properly provided with such comforts, should be sent into hospitals; and we think the Society for bettering the condition of the Poor, and the other humane proposers of this new scheme, will be more beneficially employed in enabling the hospitals already existing, to keep up their proper establishment, and reopen the wards which have been long closed from want of funds, than by encumbering dispensaries with a superfluous apparatus of culinary utensils, or stocking the apothecary's shop with shirts and flannel waistcoats.

ART. III. *National Vaccine Establishment.*

IT was understood, after the very decided tone, which the College assumed in their reports to the House of Commons, relative to the efficacy of the cow-pock, that the Royal Jennerian Society, which was instituted and had flourished under the patronage of their Majesties, and of the whole Royal Family, would immediately have received the support of government. But government, it should seem, can only act through corporate organs; the work of vaccination has been put into the hands of the President and Censors, for the time being, of the College of Physicians, and of the Master, and two other officers of the College of Surgeons, who constitute a Vaccine Board. The Jennerian Society necessarily falls to the ground; for the contributions of individuals are naturally withdrawn, when it is known that the public purse is open for the prosecution of a similar pur-

pose. The sum of 3000 pounds, for the year, was voted by Parliament. An expensive *ready-furnished* house has been hired in Leicester Square, for the residence of the Register (who is also Register of the College of Physicians), and for the meetings of the Board; but no vaccination is there permitted: apartments in a house in Lisle Street having been likewise hired for the purpose of a central inoculating station, and for distributing the vaccine virus gratuitously. Dr. Jenner was not made one of the Board; but had the purely nominal appointment of *Director* assigned to him, which, however, he has declined.—Mr. Moore was appointed *Sub-director*, and six inoculators were nominated to perform vaccination gratuitously in different districts, in London; to whom, we believe, a seventh has been added, for the Borough. Among these are Mr. Carpue, Mr. Charles Aikin, Mr. Lane, of Guilford Street, Mr. Vincent, Assistant Surgeon to St. Bartholomew's hospital, Mr. Sawrey, of Chancery Lane, and Mr. Halls, of Westminster. Mr. Murray, the active Secretary of the late Jennerian Society, has been appointed Secretary to the Board.

Although this establishment has, in our opinion, been constituted in a very objectionable manner, we are happy to hear, that some active measures have already been adopted for making its existence and objects known; we trust that this new energy will continue unabated; and perhaps the annual change in the Board, with the changing Censors, &c. of the Colleges, may be the best pledge for its continuance. Letters addressed to the Register, Dr. Hervey, 21, Leicester Square, will obtain for medical practitioners, in the country, a supply of vaccine virus, which will be sent to them, free of postage.

Art. IV. *Remarkable Cases.*

1. *Case of a Knife-eater.*

THE following remarkable instance of the power of the human stomach, in resisting, for a long time, the injurious irritation of extraneous bodies, has lately occurred in Guy's Hospital; and we can pledge ourselves for the correctness of the statement.

John Cumming, an American sailor, being on the coast of France, in the year 1799, went on shore with some of his comrades, and attended the exhibition of some jugglers, who, among other tricks, pretended to swallow knives. In an hour of intoxication, afterwards, he was induced to attempt to rival the jugglers, and actually swallowed *four* clasp-knives, such as sailors commonly use; all of which passed from him in a few days without much inconvenience. Six years after that, being at Boston, he was urged to the performance of another feat of the same kind, when he swallowed *fourteen* knives of different sizes: by these, however, he was much disordered, but he recovered in the Infirmary at Charleston, near Boston, where the knives are preserved. Being captured on board an American ship by his Majesty's frigate *Isis*, in the latter end of 1805, he entered the British service; and having boasted of his former exploits, he was unfortunately prevailed on to gratify idle curiosity, by swallowing *seventeen* knives, on two successive days. He was immediately seized with violent pain, excessive reaching, and other alarming symptoms, requiring the aid of the surgeon, under whose care he remained for eighteen months from that time, when he was discharged as unserviceable. He was twice in Guy's Hospital, in 1807, under the care of Dr. Babington; who, although the man brought a letter from his surgeon at Portsmouth, and although his fæces were observed to be deeply tinged with black, as if chalybeate substances had been copiously swallowed, nevertheless doubted the truth of his story. But he was again admitted by Dr. Curry, in 1808, and remained under his care for the last seven months of his life; the whole of that time being passed in almost constant

pain and progressive emaciation, until the end of March 1809, when he died.

On examining the body by dissection, the whole length of intestinal canal was found to be dyed of a black colour, as if the man had been drinking ink: in his stomach were found *fourteen* knife-blades, and a number of back-springs, all of them much corroded, and some nearly dissolved, but on one blade the maker's name remained visible. A brass button, and part of the lining of a silver knife, were scarcely affected; but the iron linings and horn handles of the other knives were either dissolved, or had been passed downwards. He was reduced to an extreme degree of emaciation; but the immediate cause of his death was the back-spring of a large clasp-knife, which had penetrated the intestines, and passed almost entirely into the cavity of the abdomen. Two other back-springs had got down still lower, and were fixed across the pelvis, so as to be felt by the finger, when introduced into the rectum. Though the blades and back-springs found in the stomach were extremely ragged and sharp, yet this organ was not penetrated by them in any part; and, what is still more surprising, he could bear considerable pressure there, and at times took food with appetite.

Cumming was remembered to have been in Charleston Hospital, in 1805, by a gentleman from Boston, now in London; and if any doubt could remain after the inspection of the body, his exploit on board the *Isis*, at Portsmouth, has been confirmed in the fullest manner by Capt. Ommaney, the commander, and Dr. Lara, of Portsea, who was surgeon of the ship. The knives, as taken out of the stomach, with the stomach itself, are preserved at Guy's Hospital, and were shewn to the members of the Medical and Chirurgical Society, at their meeting, on Tuesday, April 4th: and the particulars of the case were related, on the preceding evening, by Dr. Babington, at a meeting of the Medical Society of London. It may be added, that many of the knives, when clasped, were *four* inches long, and one inch and a quarter across the widest part of the blade and handle. A narrative of his feats, drawn up by himself, was found in the man's pocket, and is now in the possession of Dr. Curry, who will doubtless publish a minute statement of the case.

2. *Instance of premature Puberty.*

A CHILD, at the age of two years and a half, was exhibited in the summer of 1808, in Holborn, and for a short time at Brighton, under the name of the infant Hercules, and attracted the attention of a number of people, from the ordinary marks of puberty having already manifested themselves, particularly in the organs of generation. At present the indecent exhibition has been withheld, and the child has been accessible chiefly to medical men. We saw him a few weeks ago, when he had not yet completed his *third* year. He was uncommonly large in all dimensions, especially in the length of the body from the pelvis to the neck, and in the breadth of his chest and shoulders; the head being small, with strong hair, and the neck strong, but in beautiful proportion. The whole body is extremely muscular, the muscles being well marked, and swelling greatly when in action. His strength is prodigious, and he is proud of exerting it. The skin, especially of the hands, is coarse and hard, and, on the legs, has a considerable quantity of hair on its surface. The pubes is covered with strong black hair; the penis is, in all respects, fully evolved, and of the usual size and appearance of that organ in an adult of eighteen; the testes are also of a corresponding size, fully formed, with the cord and epididymis large and distinct, and the scrotum is brown, and beset with hairs. There has been ample evidence, too, of the proper elaboration of the seminal fluid. He has the countenance of a boy of 16, and expresses his passions in a manner very different from an ordinary child; his anger, for instance, by a strong frown, and a clenched fist. It is curious to remark, that these premature changes had commenced previous to his birth; for the sutures of the cranium were already closed. He is now shedding his front teeth, but cracks nuts very readily with the molares. His voice is a strong *base* tone. Unfortunately his legs are bent, probably from the weight of his body prematurely increasing in proportion; otherwise he would be a fine specimen of Herculean symmetry. His mind appears to be strong, and he uses expressions beyond his years.

He is the son of a coachman, who had *nine* children, of whom Philip, here described, is the *seventh*; and nothing remarkable is observable in either of his parents, or in the other children. Mr. Anthony White, assistant surgeon to the Westminster hospital, has communicated the particulars of this singular case to the Medical and Chirurgical Society, which will be published in their forthcoming volume.

Art. V. *Notice of intended Publications.*

A TREATISE on some practical points relating to Diseases of the Eye, and particularly on the nature and cure of Cataract in persons born blind, is preparing for publication by Mr. Saunders, demonstrator of anatomy at St. Thomas's hospital, and surgeon to the Dispensary for diseases of the Eye and Ear.

Dr. John Thomson, Professor of Anatomy to the Royal College of Surgeons, and Regius Professor of Military Surgery in the University of Edinburgh, has in the press a System of Surgery, in four volumes 8vo. This work is intended to exhibit a concise view of the present state of the principles and practice of surgery, illustrated by numerous historical and critical remarks; and will contain full and accurate references to the best and most original sources of information, relative to the anatomy, pathology, symptoms, and treatment of surgical diseases.

Mr. Russell, of Edinburgh, also, has announced his intention of shortly publishing a System of Surgery, in four volumes 8vo.

Dr. Serney has in the press, a treatise on Local Inflammation, more particularly applied to diseases of the eye.

Dr. Adams is about to publish a work on Epidemics, in which he proposes to consider the laws which govern such diseases, and discuss the late proposals for exterminating the small pox.

Mr. Alexander Walker, of Edinburgh, has in the press, a Compendious, but very complete System of Anatomy.

Mr. Bewick, the celebrated engraver on wood, has been long en-

gaged on a system of economical Botany, which will include about 450 plants, the most useful in medicine, diet, and manufactures. The text, containing a body of information relative to the history, properties, and uses of the several plants, has been prepared by Dr. Thornton.

Mr. S. Parkes, author of the Chemical Catechism, has in the press a small volume on the Rudiments of Chemistry, with familiar illustrations and experiments.

The second volume of Mr. Charles Bell's System of Operative Surgery is expected to appear in the month of July next.

Dr. George Alley, Fellow of the Royal College of Physicians, Edinburgh, has announced for speedy publication a work, entitled, Observations on the Hydrargyria, or that peculiar species of eruptive disease, arising from the exhibition of mercury. This work will be printed in 4to. and the subject will be illustrated by engravings, representing the more particular appearances of this singular and interesting disease.

A System of Anatomy, in four volumes 8vo. is preparing for the press by John Gordon, M. D. lecturer on anatomy and physiology, and Fellow of the Royal College of Surgeons, Edinburgh.

A committee of the Royal College of Physicians of London has been long engaged in preparing a new edition of the Pharmacopœia, of which a printed specimen was sent to each of the Members, last spring. Considerable alterations were made in the nomenclature, so as to introduce the Linnean names of the animal and vegetable substances, and to bring the terms of the chemical compounds more nearly to the standard of chemical science. A second specimen has been lately circulated among the Fellows of the College, in which considerable changes have again been made. It is expected to appear very soon.

The College some time ago announced their intention of publishing collections of papers, as a sequel to the three volumes of "Medical Transactions," which appeared many years ago; some papers have been received, but at present the probability of speedy publication is not great.

Mr. John Pearson, Surgeon to the lock-hospital, &c. is at length

engaged in writing a treatise on Syphilis, which, from the ample opportunities of observation that his public and private practice have for many years afforded him, and his well-known learning and talents, will, we have no doubt, contain the most complete and scientific view of this obscure and complicated disease ever published.

Dr. Stock, of Bristol, has undertaken to publish an Account of the Life of the late Dr. Beddoes, under the sanction of his friends, by whom the most copious and authentic information will be communicated.

The Medical and Chirurgical Society of London are about to publish a volume of papers, which have been read at their meetings; it has been a considerable time in the press, and will contain much interesting matter.

The Medical Society of London, since the election of Dr. Lettsom to the chair, are collecting materials for a seventh volume of their Memoirs: but it is not likely to appear very soon.

We are informed, that a society, connected with St. Thomas's and Guy's hospitals, who published, several years ago, an useful volume of papers, under the title of Medical Records and Researches, are engaged in preparations for a second volume.

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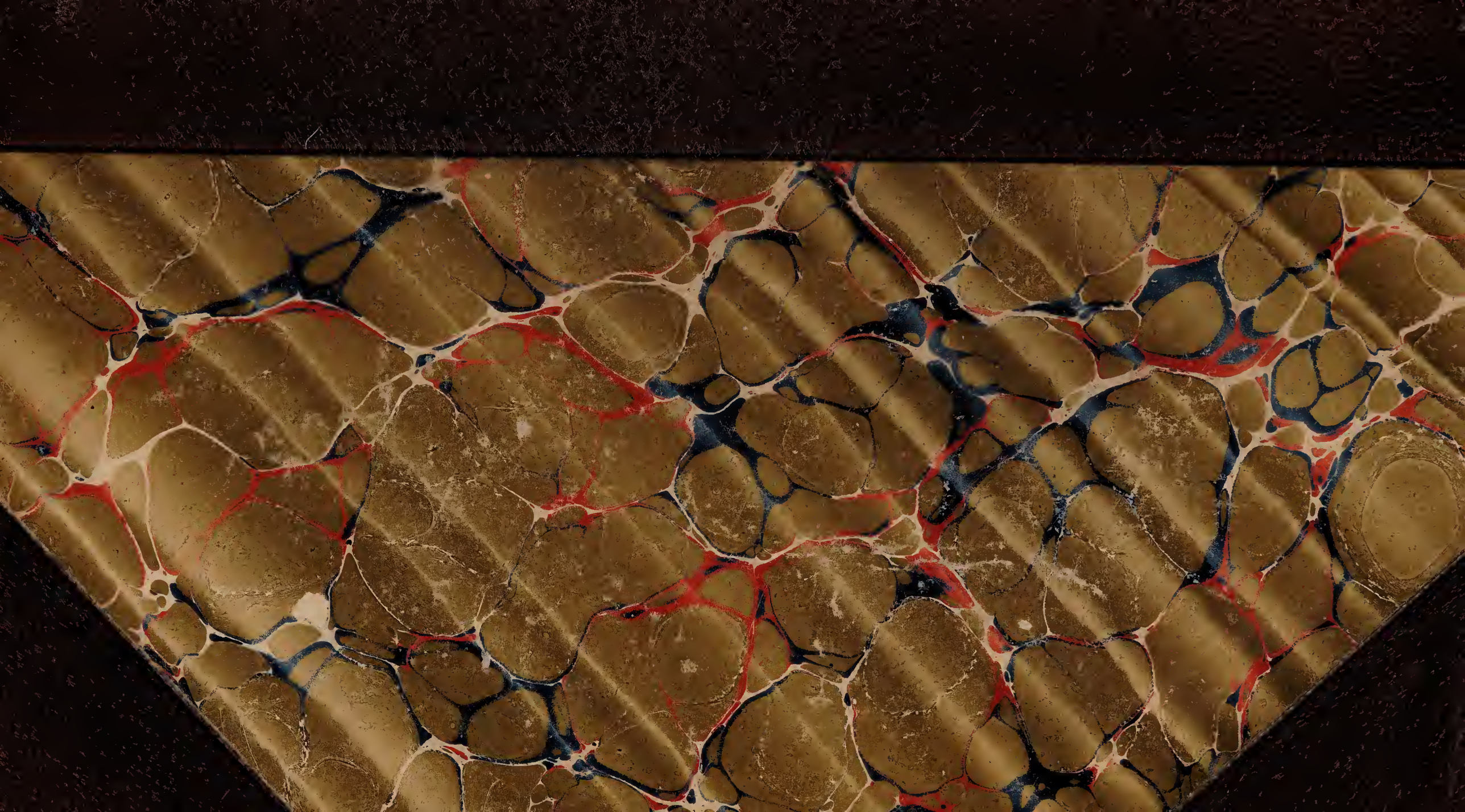
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